

AMERICAN BEE JOURNAL.

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Novice.

DEAR BEE JOURNAL.—It would appear from the March number, just at hand, that if our aim in writing was popularity, we were decidedly going down hill; but as it isn't anything of the kind, we presume we had better try to be useful in our own way, however imperfect it may be. As to the continued charges of axe-grinding, we wish to make this little defence. If having "things to sell" is axe-grinding, we shall most assuredly "grind" so long as we live. We believe everything we have offered for sale was first described as fully, and at length, too, as we knew how, with no thought or intention of selling, as may be seen from back numbers of the JOURNAL.

First, some one wanted us to make him a honey-knife as we preferred them. Now, as we could not afford to give them away, we were obliged to sell 'em, and at once used the advertising pages in so doing, for we did not want to lay ourselves open to such charges as have been made. Our readers can decide whether our knives were a boon to the community or not, and whether the price was not a fair, honest one.

After recommending a hive that could be made for a "dollar," some one said at once they *could not* be made for that price, which stirred our "grit," and again we said on the advertising pages, "Hives for \$1.00;" and for convenience of shipping, and solely to save our friends extra expense in express charges, "ready to nail" for ninety cents, if they wanted a sample.

Now the profit to us is quite small, and the express charges to our friends are heavy. It is much the best for them to make their hives, extractors, tea kettles, etc., at home, and to help them do this all we can, we have gone to the expense of having printed the fullest description, with accurate dimensions of every part. This circular was intended to avoid answering innumerable letters, over and over again, and is always mailed free, and oftentimes postage paid by ourselves, too. Are we not excusable in having "things to sell?" Have those who abuse us always paid for space, too, in the advertising columns, as we have? We know it is spiteful, but we don't care if we ain't "awful good," and so we can't forbear enquiring, did we ever ask anybody for a "dollar" for directions for making the hive we preferred? or what is the same thing, for "rights" to make, or use our ideas?

As to the tin corners, they were never mentioned or referred to in the columns of the JOURNAL until some one "lugged" them in and we were obliged to answer their questions. If they don't make their own way, let 'em drop. If we have got any money from anybody's pocket without giving a fair equivalent, we'll hand it back as quick as if 'twas hot, if they will only tell us where to send it.

Please, Mr. Gallup, why don't you say "naughty" things about friend Muth, who writes just below you? He's got "things to sell." Some may think they are a bother, too, for we were once obliged to get over a barrel of honey out of the jars again, after they were nicely labeled, before we could sell it, and now we think it better to bottle it only when it is ordered in that shape. If Mr. Muth can close his bottles with the tin foil caps so that no honey will ooze out in the candying process, we, for one, will thank him most heartily. His goods are sold at a fair profit, and we must confess that we really like folks that have *good* things to sell and are *prompt* and *careful* in their way of doing business.

"Quilts and pillow cases!" Well, if we never told the result of our experiments when we followed that subject "day and night," we will do so now. The quilt must be so soft that it will not crush the bees when pressed down on their backs; must be light, warm, and sufficiently porous to allow ventilation, and must be of such material that the bees will not gnaw through it. We make the cases of the strongest bleached cotton sheeting we can get, and to save waste buy it eighty-four inches wide, at fifty cents per yard. We get the finest quality of cotton wadding, at forty-five cents per pound, of John Bacon, Winchester, Mass., and when the quilts are made exactly the right size, which is no easy matter, they are just as nice as can be. As shrinkage of the quilt makes trouble, the cloth should be washed enough to shrink it before using, if the sample used does shrink, which may easily be tested. Materials cost about fifteen cents; making, five cents; so there's a profit of five cents each in selling them at a "quarter." (The dollar hive can't well be used without quilt.)

Friend Argo, how do you know that our opinion is a mistaken one, that ten colonies should give a barrel of surplus the worst season? If the ten colonies are all *powerful early in the season* (and there is no swarming,) and they certainly can be made so, is it not possible for them to store thirty-seven and a half pounds each more than enough to winter, even the

poorest season you ever knew? Our locality will certainly do it, and we think the mass of our bee-keepers who have used the extractor will call our claim a very modest one.

We should not invariably leave "four frames of sealed honey" in the middle of the hive *all the time*, because they would occupy valuable room, but after about the fourth of July we would extract from the upper comb only, for there would be, at that season, not so much need of giving the queen room. In case hives are used in which combs are extended horizontally, of course the central combs should be left, after such a date, as different localities seem to designate proper.

In quoting Quinby for the benefit of Alley and Adair, we certainly did the latter some injustice, for he did invite criticism, even if he did afterwards seem to think it proper to retaliate rather recklessly. We had given up trying to get at the "New Idea," but as late developments seem to indicate that it means combs spread out horizontally, we must insist that that isn't new. See former volumes of A. B. J., besides what Argo says, page 211. As to putting empty combs in the centre for the queen to deposit eggs in, some who "over-did" that business in 1868, or earlier, should report.

How about wintering small colonies? Why don't those report who have tried it? It's our impression that it can only be done in very warm cellars, and even then we are afraid it will be like some other great things, viz: "'twon't work with everybody." A report from Mr. Hosmer's neighborhood says *he* has lost sixty colonies this winter. How is it?

Mr. Aldrich, page 207, is almost unkind, but we hope he don't mean to be. Just see, Mr. A., how you have wronged us. *First*, the upper and lower frames are only three-fourths of an inch apart, for we have just measured them this minute. *Second*, we don't advise *sawing the cover off*; that was only for an illustration; yet it can be done, after all, for we have done it. *Third*, sliding the hive forward *does not open it at the back in practice*. *Fourth*, we use the "lighting board with hooks," on all our Langstroth form of hives, too, of course. *Fifth*, don't "stand on your head" we implore you, for it's easier to raise the cover and look *inside*, by far. *Sixth*, grease the bevel, and the hive *won't stick fast*." Your opinions were from reading the articles; ours after having used sixteen hives all summer, before we decided to put them in print.

When we feed meal, much is wasted unless we are careful to carry it all in before a rain; but now we have a shallow trough 60 feet long by 3 inches wide, on the south side of our north high fence, and a slanting board fixed over this just high enough to exclude rain, but admit the sun. We have had no time to use it, yet are all ready. Our colonies are all in fine order, except the one that had dysentery, and they had dwindled so low that we couldn't save them; and the small nuclei we mentioned last month, six lost in all out of 71. So we have 65 now. If we don't get 6½ barrels of honey this season, call us forever

NOVICE.

Marketing Honey.

J. B. Colton, of Sycamore, Ill., writes: "We have had some trouble in selling our honey at fair prices.

We extract all our surplus honey, and of course have to encounter the common prejudice existing in regard to all strained honey. The fact that we sell at figures that would make the manufacture of artificial honey unprofitable, ought to silence grumbler and probably would if we had time to argue the subject on all and they were disposed to listen and reason. We put up most of our honey in half gallon jars and let the groceryman sell for us at one dollar per jar. The jar, if returned, is purchased back at 25 cents, which leaves only 75 cents for half a gallon of honey. We are determined to make a market for our honey at home, and therefore sell at a price all can afford to pay. When the demand exceeds the supply we shall raise our price, but till then we shall sell low and content ourselves with small profits in the hope of making quick sales. Honey has not yet become a common article of food. It is not inquired for at groceries as sugar and tea are, and will not be in some time even though it is sold cheap. Honey dealers in cities are working against the interest of bee-keepers by keeping up the price of honey. Last season we sold our honey in Chicago to the 'exclusive honey dealer' for one shilling per pound, he at the same time retailing it from 30 to 40 cents per pound. It must be evident to all intelligent bee-keepers, that at the rate honey is being produced, the retail price must come down before we can ever sell the large amount that is now yearly put on the market."

Common Sense.

B. C. Anshampaugh, of West Township, Albany Co., N. Y., writes: "I have kept bees the past eight years; have been a careful reader of the AMERICAN BEE JOURNAL four years; have used different style of hives; have at times had success and at other times have met with disappointments and losses, and have come to the conclusion that a man, to make bee-keeping profitable, has got to be governed by common sense, for I find that the system that one advocates of managing an apiary will not do for another. For example, an expert apriarian keeping bees in a warm or mild climate, by his plan of management may have success every year. Now, let the same man go into the cold northern climate, where the mercury freezes up, and he will find, with the same management, that his bee-keeping will be in part, if not wholly, a failure. Some advise using one style of hive, and others recommend other styles, all claiming that their hive is the best. Some advise upward ventilation and others no ventilation at all. One has his hive ventilated by raising the honey-board, and another has his hive perfectly air-tight, and all claim success.

Now, Mr. Editor, how are young beginners going to make bee-keeping profitable without being governed by common sense? I would say to beginners, first take the AMERICAN BEE JOURNAL, and read it carefully, and then in your own judgment decide which style of hive to use, and what mode of management to pursue. Do not go to extremes in any case, for fear of draw-backs, but first know that you are right and then go ahead. By the way, I will give you in brief my mode of wintering bees. I have wintered them in the cellar and in the garret; have buried them; have wintered them in a special repository with double walls filled in with saw-dust, with lower

and upward ventilation, and have wintered them on their summer stands. I have never wintered bees yet without losing some of them. And now, right here let me say, that I will give any man one hundred dollars who will teach me the art of wintering bees without the loss of a swarm. One more word, and I am done. It is in regard to the loss of bees in the winter of 1872. By my own experience, and what I have seen, I am of the opinion that J. H. Thomas has hit the nail square on the head, and that no one can give a satisfactory reason why so many bees died through the winter."

[For the American Bee Journal.]

Mr. Hazen on "Novice."

MR. EDITOR:—In a former communication, I sent an answer to a question or questions proposed by Mr. A. J. Root, (under the signature "Novice") and in connection with the answer proposed a few questions, requesting an answer from him in return. But, unfortunately, either I was unable to state my questions so clearly as to be understood, or he thought best not to answer them. He says, "We think we never said we would risk one thousand colonies in one apiary." Why not risk them if there is no danger of over-stocking? "But as we shall increase our bees as forage increases, we shall endeavor to make them think the locality over-stocked even if we have to keep one thousand colonies to hold our own." (AMERICAN BEE JOURNAL, Sept., 1872, page 52.)

I acknowledge some surprise that doubt or difference of opinion should find place on this subject. Our country contains every variety of honey-producing fields, from fields so barren as to render it unprofitable to keep bees at all, to fields producing honey-yielding flowers in great abundance. The capacity of every field can be satisfactorily settled only by judicious experiment and trial.

Everything personal in our periodicals is unpleasant to the parties interested, and to the public, but I can hardly feel justified, without correcting a few mistakes in the communication of Mr. Root, ("Novice,") in your issue of Volume VIII, No. 8. On page 170, he says, "Shaking young bees before the entrance of such hives, from other stocks, *a la* Hazen, will certainly give large results, but could any one honestly claim that such a yield was the product of one hive? The depopulated stocks would probably die from over-stocking."

It is unnecessary to say what charge is implied by these remarks. But I may state that the insinuation is entirely groundless.

The best colony I have ever had was a swarm placed in my hive in 1867. It was one of ten swarms bought of a neighbor, who placed them in my hives, and they stood in his yard until the close of the honey season. This hive has given me two hundred pounds of white honey in one season, one hundred and forty-three in another season, and has done well every season. Last season I had two swarms from it, thinking I would rather have the stock for my apiary than any other I could procure.

I have never, by any means, added to that stock, to my knowledge, one single bee from other stocks, nor has there ever been any addition to them but the natural product of the colony, to my best knowledge and belief. I should add that this honey was all stored

in surplus honey boxes, and was all white honey, as no buckwheat of consequence is raised in the vicinity.

What we answer to another sentence is, we ask but \$5.00 for a right to make and use the Eureka hive, or \$3.00 for a right for the Farmer's hive.

Mr. Root adds, "Mr. Hazen, why will you parade those deceptive figures? Any bee-keeper can *use all that is valuable in your hive*, and no law gives you *any power* to restrain them, and yet you do not scruple to receive and solicit ten dollars for 'right to make and use,' etc."

"Will this work never be ended, and will the community never get better informed? Remove the top and two sides from any box hive, and pile honey-boxes against the sides thus exposed, and on top, prepared with guide combs, etc., and you have, when the whole is protected by an outer cover, the Hazen hive complete."

And do not the laws protect the first inventor of such a hive? Was such a hive invented and used before Mr. Hazen invented it? And does its great simplicity and ease of construction depreciate the value of the invention? Does it not rather enhance it?

Mr. Root in another paragraph says, "Why don't we try a Bay State hive? Because it embodies no essentially different principle from Hazen's or Quinby's, and we are trying one of the latter."

If Quinby's and Alley's hives have no essentially different principle from Hazen's, are they not infringements upon his rights, guaranteed to him by the laws of the United States, and does not their use by any one render them amenable for such violation?

There is probably this difference, Quinby's and Alley's hives have only moveable-comb frames. Hazen's Eureka has either moveable frames or bars, as is preferred. With experts, who extract honey or deal in Italian queens, moveable frames may be considered a necessity. But for farmers who keep a few stocks, and would not move their frames, bars are probably better than frames. For my own use, I prefer bars. My best colony that I have referred to is in a hive with bars.

Excuse my rambling communication in answer to Mr. Root, and allow the statement of a few facts, by position or supposition:

1. A colony of bees will consume sixty pounds of honey for breeding and wintering.

2. A colony of non-swarmers will give sixty, one hundred and twenty, two hundred pounds; one-half, two-thirds or more than three-quarters of the honey in the field.

3. Swarmers will give, according to Quinby, \$1.00, \$2.00, \$3.00 worth; at twenty-five cents per pound; four, eight or twelve pounds, that is, one-sixteenth, one-eighth or one-fifth.

4. The non-swammer consumes in one case one-half, in another one-third, in the other less than one-quarter, the product of the field.

5. The swarmer, in the first case, consumes sixteen pounds, in the second case eight pounds, in the third case six pounds, for one pound given to the proprietor.

6. In the first case, for non-swarmers of hive, \$5.00, one swarm, \$5.00—\$10.00 securing sixty pounds of honey, worth \$15.00; once and half the amount of the outlay. In the second case, outlay \$10.00; return \$30.00; three times the outlay. In

the third case, outlay, \$10.00; return, two hundred pounds of honey; value, \$50.00; five times the whole amount of the outlay.

7. To secure sixty pounds by the swarmers, would require of the first class fifteen hives and fifteen swarms—hives \$1.00 each, swarms \$5.00 each—\$90.00. To secure one hundred and twenty pounds, requires thirty hives and swarms—\$180.00. To secure two hundred pounds, requires fifty hives and swarms—\$300.00. To secure these results by the second class of swarmers, would require one-half the amount estimated above, and by the last class, one-third the amount.

Ought we to be satisfied with facilities afforded our laborers for gathering the honey harvest, by which we lose six-sevenths or eight-ninths or sixteen-seventeenths of the product of our fields, when facilities and laborers are available that will give us one-half, two-thirds or three-fourths of the crop at only one-nineteenth or one-eighteenth or one-thirtieth of the expense?

JASPER HAZEN.

Albany, N. Y.

[For the American Bee Journal.]
Benedict's Plan of Pure Fertilization.

Mr. Aaron Benedict gives his plan of securing pure fertilization in the NATIONAL BEE JOURNAL, January number, page 7, and it corresponds so nearly with my experience that he will probably excuse me if I should quote somewhat extensively from his article. He says: "I place in my apiary one or more palace hives, and in those large colonies I place a thoroughly tested queen—one that will duplicate herself every time, or as near as may be," etc. Well, Mr. Editor, I might as well give my own plan as to be quoting his. In one of my large hives I place a good queen—one that I am satisfied to raise either queens or drones from, and I fill this hive with selected comb; comb that has more or less drone comb in every frame, interspersed with worker comb; I now keep this hive well supplied with honey, so that they are never destitute at any time during the season. Now if we have a prolific queen, she will keep up a large stock of bees, and a large quantity of them are drones; and from such a colony, every day that drones can fly, they make a tremendous buzzing; and in such a colony, with plenty of room and abundance of stores, they do not kill off their drones. They keep them until quite late in the fall. In fact I am inclined to think they let them die with old age, instead of killing them. Now we raise our queens from another good queen, in our yard, and thus secure a cross. It appears to me that the young queen is more apt to be attracted by the extra noise that this large body of drones make in flying, and I am perfectly well satisfied with the results thus far. This colony, raising such a large amount of drones, will not give a large product of honey; but if our object is gained, whose business is it, so long as we are satisfied? Others can try the plan. There is no patent on it. Mr. Benedict is satisfied that a person could Italianize and secure the pure impregnation of four-fifths of all the queens raised in his yard by one of those large colonies of drones. Try it. The plan can be carried

out in a two-story hive. This large drone hive I place near the centre of the yard. The only objection to this is that strangers are sometimes afraid of being stung by those drones, and I always tell them that it is sure death to be stung by a drone.

E. GALLUP.

Orchard, Mitchell Co., Iowa.

[For the American Bee Journal.]
Burying Hives in Snow.

We see that Mr. Doolittle recommends burying his bees in snow, and a correspondent asks us to give our opinion through the A. B. J. We do not always have snow enough in this climate, but we have buried them in snow many times in Canada. With upward ventilation they are all right. This winter the snow has been very deep here, and we went to DesMoines and were gone three weeks, and left all our bees buried in snow that were on their summer stands (twenty-two stocks). On the 16th of February there came a warm time, and we shoveled them out and let them fly, and right well they occupied their time. Some of the hives were covered entirely out of sight, yet we were not at all alarmed about them. One large stock that we left the inch hole stopped up by mistake, we found all dead—smothered to death—the rest were all right, strong and numerous. If the hives are properly fixed we would ask no better plan than to have them buried in snow all winter. We have set old box hives near a fence, in Canada, and let the snow drift them entirely under.

E. GALLUP.

[For the American Bee Journal.]
The Coming Hive.

The aparian who reads attentively the various sides to the hive question, as discussed in the JOURNAL, must necessarily become perplexed over the various hives and theories there so positively described.

Every hive, patented or not patented, receives from the owner thereof his unqualified assertion, enforced by vigorous language, that it is the very best hive in existence, and his theory of management perfection itself. Any person having the temerity to contradict these assertions, engenders irritation which through the mighty pen surpasses in virulence the venom of the most aggravated bee-sting.

Now from the many theories so positively advanced, perhaps the coming hive can be roughly outlined by the help of the shadow it casts before it.

Firstly. We must have a large hive to be worked as a swarmer or a non-swarmer, and arranged for obtaining the greatest yield of honey, either box or extracted, or both, as the aparian desires.

Secondly. The frames will be worked one story,—long, shallow frames in a long hive, with entrances either parallel or horizontal to the combs, as desired for different portions of the honey season. The frames must admit of easy removal, either singly or in a body, and also admit of the use of the division board.

Thirdly. Our bees in northern latitudes must be wintered in a special frost-proof house, because it is more economical and safe. The coming hive is

too large and cumbersome and occupies more room in the bee-house than necessary. The hive, therefore, must be left upon the summer stand, while the frames must be so constructed that the portion containing the brood nest can be easily removed and placed safely in the bee-house.

Fourthly. Shall we winter our bees on sugar syrup? If so, in order to save time and labor, we must have a special feeder for each hive. It need not necessarily be a "tea-kettle" or a patent feeder, but simply a tin milk pan (see Novice's Gleanings for February), set either over or under the brood nest.

Now, to obtain such a hive is at present impossible, though every patent hive man will tell you he has it, while but very few have anything that approaches it. A close fitting frame hive accomplishes the thing nearer than any other style. But in saying this, we arouse the ire of our loose frame friends. Now cannot a compromise be made between the two factions of our brotherhood, and a plan adopted that will enable us to work both loose and close fitting frames in the same hive? We could then secure all of the advantages of both.

Now, Mr. Editor, I have no axes to grind in this matter, but as a candid looker-on, give my views of what I would like in a hive. But if I were to work my apiary for box honey, give me the close-fitting frame; for extracted, the loose frame.

* SCIENTIFIC.

Hartford, N. Y., Feb. 17, 1873.

[For the American Bee Journal.]

Are We Improving Our Bees by Indiscriminate Importations of Italian Bees?

MR. EDITOR.—At the late meeting of our national society, on the last day, a resolution was adopted, tendering the thanks of the society to certain importers of Italian bees, "for their efforts to make a large importation of Italian bees." I do not speak of it to find fault with the society, for I think those who voted for the resolution were sincere; although I have heard it suggested that the resolution, coming from one who was perhaps interested in the venture, and who is notorious for what he calls "axe-grinding," whenever he can get any one to turn the crank, looked slightly like an advertising dodge. While suspicious persons will, many of them, view it in that light, I wish to draw attention to the question at the head of this article.

That the introduction of the Italian bee has been a great benefit to this country, in more ways than one, no person will deny. The greatest benefit, in my opinion, has been that its novelty has drawn attention to apiculture, and has enlisted many in bee keeping, who otherwise would have paid no attention to it. Another benefit has been that it demonstrated that some bees were better than others, and will result in the best being hunted up. More than that, it has enabled us to investigate many entomological questions, and will enable us to determine many more. Many other benefits might be mentioned, but as they have no relation to my question, I will not take up your space with them.

What is an Italian bee? The shortest answer would be, "A bee imported from Italy;" but that

would be unsatisfactory, unless we know that there is a variety or race of bees peculiar to the Italian peninsula, uniform in everything. Is it so? Virgil, who wrote more than 2,000 years ago, devotes one book of his Georgics (the 4th) to the bee, and describes two kinds, one unsightly or "ugly," like a traveler covered with dust, while the other "shines and sparkles like burnished gold." The latter, he says, is the best, "*melior*," more beautiful in form, and in the color of its glittering scales.

It is not necessary to go back to Virgil to show that the bees of Italy are not uniform, in color or temper, for all accounts, even from those breeding and shipping queens to this country, agree with Virgil.

I know it is common to state that there is but one race or variety of bees in Italy, and on account of geographic barriers—the Mediterranean Sea and impassable snow-capped mountains—no bee can pass in or out, but this is not to the point. The New World is said to have been without the honey bee when discovered, but with the Atlantic and Pacific Oceans and the Arctic regions as barriers, we now have quite a number of varieties, yet we cannot tell whence they came, with the exception of the Italian, Egyptian, and some imported to the Pacific coast from Australia.

Some years ago, Mr. Adam Grimm went to Italy in person, and made "*a large importation of bees.*" He tells us that he found the bees of that country varied, and he gave the preference to a dark colored bee, which he imported, and he will tell you now that he prefers it to the light yellow bee that takes the fancy of so many; but he will tell you further, that he cannot sell them, for they are not "the fashion." I obtained some of them through him, and can agree with him.

Rev. H. A. King, who visited Italy in 1871, stated at the meeting of the N. A. B. Society at Indianapolis, "that he examined 200 colonies in the apiary of Von Hruscka, and found two that he pronounced impure. *Hruscka admitted that they might be impure, as he had bought them of other parties.*" Now, Hruscka must have been aware that there were "impure" bees in Italy, or he would not have admitted it.

Mr. Charles Dadant, of Illinois, went in person to make the importations, for which the society tendered its thanks. In a letter written from Milan, after speaking of the bees of Pallanza, Bellinzona, and Como, that did not please him on account of color, he says: "*Sartori says there is some black blood mixed with the Italian on the frontiers of Italy.*" Read the following quotations from Mr. D.'s letters, published in the AMERICAN BEE JOURNAL, October, 1872: "I was offered 100 or 150 queens by Chevally, * * * but I would have had queens of all kinds, without guarantee of age or color."

"I saw the bees of Varese, they are no better than those of Mona, of Bellinzona. The keeper of the Royal Palace, who was born and raised in Turin, says the bees of Piedmont are blacker and crosser than those of Milan. Count Castralani, who is from the vicinity of Naples, told me also, that the bees of Milan were more yellow than those of the southern part of the peninsula. Besides, Sartori, who was born in the Tyrol, says that he does not

understand why Uhle, who raises queens for sale, has established himself in the Tyrol, where the bees are as black and as cross as hybrids."

"I am now wondering why Mona wrote in an article in *Le Journal de Fermes*, that all the bees of the Italian Peninsula were pure Italian, when he ought to have known there was such enormous differences in their color and character."

What is an Italian bee? Can any one tell us? If you ask what constitutes a distinct breed of cows, hogs, or even poultry, you can find all the points peculiar to each laid down. As well say all the hogs of Chester county are pure Chester hogs, or all the cattle of Durham are pure short horns, and buy them and breed from them, as to say that all bees from Italy are pure Italian, and import them with a view to improvement. Mr. Dadant found no bees that would please him, except the bright yellow bees around Milan. Mr. Grimm, on the other hand, found the best bees, to his fancy, in the Tyrol, where Sartori says the bees "are as black and as cross as hybrids." Mr. Alley, in Massachusetts, prefers a light yellow; friend Benedict, of Ohio, wants a leather color; one wants queens with dots on their backs, another wants them a clear yellow. Grimm thinks a bee that has not spirit enough to sting pretty fiercely, has not spirit enough to excel in industry. Dadant hunted up the submissive, docile kind.

In view of the evidence I have presented, can any one decide that there is a distinct type or race of the honey bee meant when we speak of Italians? Have the bees of Italy any fixed characteristics? Do they not vary in temperament as well as color? Do they not vary in their propensities for swarming? And, most important of all, do they not vary in productiveness? Can we even separate them into varieties? Are the bees of the Tyrol so uniform in characteristics, that we would be justified in calling them Tyrolese? Are the bees of Milan all alike? Are the dark colored bees of Piedmont distinct from the orange-banded bees of Lombardy?

The limited area in which we find all these variations would prevent the establishment of any distinct variety, and that being the case we must conclude that if there be black blood on the frontiers, as Sartori says; if the bees are black and cross in the Tyrol and Bellinzona and Piedmont, the bees of no part of the peninsula could be kept distinct, for decamping swarms and the wanderings of drones and queens would soon mix from one end of the country to the other.

I am satisfied that there are no benefits to be derived from any further importations of bees from Italy. The first importation of Parsons were the best that I have had, although I have had bees from nearly every importation that has been made; and had no others ever been imported, and we had kept them pure, and improved them by proper selection and breeding only the best, the bee-keepers of the United States would now be in possession of a valuable variety of bees; instead of which, I doubt whether there is an apiary of fifty colonies in the country, that does not show their purity by duplicating the bees of every part of Italy.

Milan is not exceeding fifty miles from Turin, where Mr. D. tells us the bees are blacker and crosser. The Tyrol is no further off, nor is

Bellinzona, where Sartori tells Mr. D. there is black blood mixed with the Italians. Lombardy, in which Milan is located, is on the frontier, in the north of Italy, and is surrounded by Piedmont, the Canton Tessin in Switzerland, in which is Bellinzona, and the Tyrol in Austria, where we are told these black bees are. A look at the map will show that it would be impossible to prevent for 2,000 years the intermixing of all the bees of Italy.

Italy has an area of 100,500 square miles, or about 9,000 square miles less than the two states of Illinois and Wisconsin, and if you will take a map of those two states and add to them that part of Michigan that lies between Lake Michigan and Lake Superior, you have a pretty good map of Italy, with about 20,000 square miles more of territory, located between the same parallels of latitude. To complete the map, you have only to call Lake Superior the Alps, Lake Michigan and Indiana the Gulf of Venice, and the Ohio and Mississippi rivers the Mediterranean Sea. Now locate Milan in the northern part of Marathon County, Bellinzona due north on the lake, Turin fifty miles west, the Tyrol fifty or sixty miles north-east, Naples down about Alton and we have the map complete, and can form some idea of the possibility of keeping two races of bees, from mingling for 2,000 years, particularly if left to themselves, without any care being taken to prevent it.

Now don't understand me as wishing to injure the reputation of the imported bees. I am only trying to answer the question at the head of this paper, and I think I have shown that no further good can be accomplished by continuing the indiscriminate importation of them. Let us improve what we have, and by a judicious selection and breeding, establish varieties or breeds that will better answer our purpose. Here is a wide field open to us, and it is the only direction in which I think we can look for improvement.

We have, in different parts of the country, bees exhibiting as variant characteristics as do the bees in Italy. The grey, the yellow, and the brown bees of the south, with the large and small black bees that are common to the whole country, have had no attention paid to them. Many of them are as gentle as any Italians. Have any experiments been made to test their value? If so, I have not heard of it.

As this article is already of sufficient length, I will, with your permission, continue it next month, and make some suggestions on the subject of improving the bees, with a view to establishing distinct breeds.

D. L. ADAIR.

Hawesville, Ky.

[For the American Bee Journal.]

A New Contributor.

DEAR JOURNAL:—Will you admit another contributor to your columns? For several months I have thought I would write and let my fellow bee-keepers know that there are some interested in bee culture and the AMERICAN BEE JOURNAL in the northwest corner of Ohio. I have a small apiary, and am using the Langstroth hive exclusively. Have tried several others, but am satisfied that the Langstroth is the best for frequent manipulation.

I am glad to say that I am not the only one in this vicinity keeping bees on the improved system, but have a brother bee-keeper within a few miles, who also makes it a business, and he, too, uses the Langstroth hive. We are doing all we can to introduce it, and consider that in so doing we are doing a *real good* to the community; for when a man is the means of saving thousands of pounds of honey from going to waste, is he not a blessing to the place? And from the manner in which my bees brought in honey last year, and comparing it with what my neighbors obtained with box hives, and their reports of past seasons, I am convinced that thousands of pounds of honey have gone to waste every year. I am also convinced that the Italians are far superior to the black bees. I am satisfied of this from last year's experience, for I made it a rule to weigh the honey produced by each colony separately, and I found that during the first two weeks of honey gathering eleven stocks of Italians produced three hundred and fourteen (314) pounds, and seventeen stocks of black bees only produced fifteen (15) pounds. Now there is a great disparity between those two figures. In one of my colonies, I have a little Egyptian blood, and, Mr. Editor, I will endorse what has been said about their stinging propensities, but yet do not wish to lose them, for they are business on honey gathering, as well as in stinging.

I don't know how I should feel in regard to a whole apiary of them; but I tell you what it is, Mr. Editor, a few of them in an apiary are as good as a watch-dog or two. I have not been troubled much by having honey taken or borrowed, for I don't tell everybody which are the Egyptians, only that I have some, and that they are apt to sting if any one comes in close proximity to their habitation. Not that I have much reason to suspect that such a thing might occur if I had not those little pets, but coming into a strange place, it is well to be careful and on guard.

I use an extractor, not a patented one, but one that I believe has no superior as yet; a stationary can, such as Novice talks about, twenty-five inches in diameter, containing a galvanized wire-cloth frame, capable of holding six, four, three, or two frames of comb, and yet maintain its balance. One great advantage is, that the top is all open, the gearing working from the bottom. I have no doubt that many of the bee fraternity have had their patience tried with having new comb, heavy with honey, break down in the extractor. The bar commonly used across the top for the gearing to rest upon, is just where one does not want it. Another improvement that I have is a large strainer, the size of the can, fitting in the bottom, so that when I open the faucet to draw off the honey, it comes out perfectly clear. The tin will hold 50 pounds, or over, below the strainer. I have spoken of this because I think that whenever any bee-keeper has something suggested to him by his own experience, it is his duty to let the fraternity know it. I am not an old, experienced bee-keeper, having had but four years experience, but one finds out more by working in the apiary one season, than by two years of studying theories.

I like tan bark around my hives in preference to sawdust, for it will not take fire if a spark should

accidentally fall on it, and I presume that rotten wood is more generally used than anything else.

I was very much surprised to read in the January number of the JOURNAL that Mrs. Tupper made the statement that "the extractor should never be used on comb that had brood in it, in any stage, as from careful experiment she had ascertained that in every instance the brood, even after it was capped over, was destroyed." Now, last summer I had not a frame of brood in my apiary but passed through the ordeal of meleextracting *every week* during the extracting season, and I noticed that some of the brood was thrown to the mouth of the cells, from turning too rapidly, and could not escape on account of the wirecloth obstructing the entrance, and in no case was the brood thus displaced destroyed, which convinced me that the bees removed them back.

AVIS.

[For the American Bee Journal.]

Dark-Colored Queens.

In the A. B. J. for January, page 177, Mr. MacGaw complains of the color of the queen he has received from my last importation. While in Italy, I accepted all the tolerably good looking queens, if they were very prolific. The boxes containing the brightest were carefully marked, for I know the prejudices of the majority of queen-breeders against the dark-colored queens.

I intended to preserve, for Mrs. E. S. Tupper and for myself, all the dark queens, for we both know very well that the light-colored queens are less prolific and less vigorous than the dark. In so doing, we were sure to satisfy everybody—those who preferred the color rather than the quality, and those who, like ourselves, preferred the quality rather than the color.

But on my arrival at New York, three-fourths of our queens were dead, and those remaining alive, needed immediate care to rescue them. In the hurry, the queens having been changed of boxes, it was impossible to select the lightest for our patrons. I selected but one for myself, because she was nearly, if not quite, black.

I will return to Italy this summer, and if Mr. MacGaw will send us another order, I will choose for him one of the lightest-colored queens I will be able to find, unless the dark-colored queen that he has received prove to be so good that he changes his mind as to the desirable color for the queens.

As I have already said in my articles entitled "Travel in Italy," and which are being published in the bee journals, *there is not a queen in Italy which will duplicate herself every time*. Consequently the color of the queen is a bad test of purity. Furthermore, it is a means which would tend to the degeneracy of the race; for the light queens have less vigor and less fecundity than the dark.

Some two or three years ago, one of the best queen-breeders of this country exchanged queens with me. I sent him two queens, which he has, no doubt, found too dark; for he is, or was at that epoch, quite an amateur of light-colored queens. He sent me two very yellow queens. One was sick on her arrival, and died two days after having been introduced; the other was so little prolific, that I superseded her the next season. I am in the habit of

replacing any queen who lays less than 1,800 eggs per day in the breeding season. I have had some dealings with this breeder; he complained several times of the color of the queens he has received from me, but he lauded their prolificness every time.

I have had three queens whose eggs did not hatch; and every time I noticed that these queens were very light colored.

As my business is less to sell queens than to produce honey, I always give the preference to dark-colored queens. If the bands of their progeny are leather-colored, instead of yellow, it is of no matter, for I know that these workers will fill their hives and boxes, if there is some honey in the flowers.

How is it that a light-colored queen can produce dark daughters, and *vice versa*? I don't know. Perhaps the color or the quality of the honey, or of the pollen, causes it. Perhaps the weather was cold or rainy while the queen was yet a young grub. Perhaps the wind blew from the north or from the west. Perhaps electricity plays its part in that, as well as in other things. I care not. But of two queens, one very light yellow, the other very dark, whose worker-bees are equally well marked, I would not hesitate to choose the darkest.

CH. DADANT.

Hamilton, Ill., Feb. 11, 1873.

P. S.—In order that the above article may be well understood, I will add that in Lombardy the queens are generally leather-colored; the dark and the yellow are exceptions. I have accepted all the light-colored because they answer well to the desire of our queen-breeders; but of the dark, I have accepted only the most prolific. If I had chosen all the queens for myself, I would have discarded all the light-colored.

CH. D.

Feeding Bees.

The following article is from the *Louisville Weekly Ledger* of March 12th. From the style, use of the term "Melipult," and other circumstances, we conclude that it is from the pen of Gen. D. L. Adair. It will repay attentive perusal, especially on the part of those who are comparatively inexperienced in bee-culture:

No bee-keeper can have the best success that does not understand the necessity for timely feeding. Few resort to it at all, while very few are even aware of its importance. Our standard authors either pass over the subject in a careless way, or condemn it altogether.

Mr. Hosmer, whose wonderful success has made everybody stare with wonder and incredulity, stated, at Indianapolis, before the North American Bee-Keepers' Society, that "The whole theory was to keep the bees feeding all the time when they can get no honey in the fields, regardless of the time of year."

We propose briefly to notice the conditions under which it is either necessary or beneficial to feed bees.

1. In the spring of the year the queen will not breed much, until honey is being gathered rapidly by the bees, so that by the time the colony becomes

populous enough to gather much honey a considerable part of the best of the honey season is past, and frequently, in some localities, all of it. By commencing as soon as the bees can fly out, and continuing to feed until the flowers yield honey, a month's time may be gained, and the surplus honey increased four-fold. If once commenced it must be continued, and enough food given to feed the growing brood; for, to stop when the comb is filled with brood and eggs would result in starvation and death. The feeding should not be too abundant, as the bees will fill the comb cells, and leave the queen no room to lay; and, besides, it would be an unnecessary waste. A few table-spoonsful, at first, will do; but, as the brood increases, the quantity should be increased to a half pint or more each day.

2. It frequently happens in the spring, after the honey harvest begins and the hive is full of brood in all stages, that a sudden change of weather cuts off the supply, and even confines the bees to the hive, and unless a supply of food is furnished, the queen will cease to lay, and perhaps much of the brood perish. At such a time feeding will be profitable.

3. There is no season of the year in which there are so many colonies of bees die out as in the early spring, before the flowers yield honey, the bees having exhausted all their winter stores, die of starvation, or in their extremities swarm out and either go off, or join other colonies that have a supply—it may be only to hasten the destruction of their hospitable neighbors. Even if a regular system of feeding is not adopted, the bee-keeper should examine all of his stocks at the opening of spring, and feed those needing it.

4. In the fall of the year a good bee-keeper will strengthen all his weak colonies by liberal feeding. In this instance the food should be given as fast as the bees will take it, so that it may be capped over before winter, otherwise it may ferment and produce disease.

5. Where supers or boxes are used the bees will not deposit honey in them until the brood chamber is filled. Sugar, syrup, or dark honey may be fed to them to do this with, so that the nice clover-honey may be deposited in the boxes.

6. At the end of the honey season some boxes will be not quite full. Honey may be fed to the bees to finish them out.

7. When bees are afflicted with dysentery or cholera, or other disease induced by bad honey, or infection in it, all of their stores should be taken from them, empty comb given them, and then they should be supplied with pure sugar syrup. Or if no empty comb can be procured the infected comb should be emptied of its honey with the Melipult, and after being thoroughly fumigated with the smoke of burning sulphur, exposed to the air for a few hours and returned to the hive, and the syrup fed to the bees to be stored in it.

8. When the nucleus system of swarming is resorted to, (that is setting up small colonies and building them up,) it cannot be depended upon with certainty, unless any deficiency or cessation of natural forage is made up by feeding.

9. The queen-breeder cannot pursue his business with much success, except while honey is abundant, unless he resorts to timely feeding, and when it is

necessary to shut up or confine the bees, even if they have honey in the comb, it is best to give them some food, as it keeps them better satisfied, and enables them to go on with their work, and if a queen is present there will be no cessation of ovipositing.

The natural food of bees in mature state is saccharine juices or secretions of plants known as sugar, ordinarily grape or fruit sugar, as they are the most accessible; but as they are never in nature free from other secretions of the plants, they necessarily vary. Cane sugar generally is purer and furnishes the best food. It may be stated as an ascertained fact that the purer the sugar, and the freer it is from any foreign substance, the better it is suited to the sustenance of the bees. Pure white sugar, dissolved in water with a little heat, so as to be of the consistency of their honey, is the best food that can be given. A 1 coffee sugar will answer every purpose. The lower grades of brown sugar will do for feeding, if consumed in the summer, but for winter use it should be pure. Every addition of drugs, cream of tartar, or any other, slippery elm, sassafras buds, or anything except sugar, as frequently suggested, is unnecessary, if not injurious.

Brood can not be reared without farina. The natural supply is found in the pollen of flowers, and when gathered by the bees is known as bee-bread. But any of the farinaceous grains will furnish it. Dzierzon first noticed that bees would substitute rye meal for the pollen of flowers. Since which the meal and flour of oats, wheat, barley and Indian corn have been successfully substituted for the natural pollen, and found to answer the same purpose.

[For the American Bee Journal.]

A Trio of Topics.

CHALLENGE ACCEPTED.

MR. EDITOR:—Some time ago, Novice challenged any one that he could extract one hundred pounds of honey in less time than any one could take off that much in boxes. From his article in the February number, I would infer that this challenge is still open. If so, I would accept it, and of course claim the right to choose the weapons.

So, then, some day in July next, we will take off (at least) one hundred pounds of box honey (net weight), weigh it, and store it in our honey room. Two or three responsible judges shall witness and time the operation. Would expect the same procedure from Novice. We take it for granted that Novice would prefer to choose his own day for the operation. So do we. Now then, Novice, take off your coat and roll up your sleeves, for we shall do our best.

OVERSTOCKING.

We fear that Novice's head is not quite clear on this subject yet, notwithstanding his rapid strides in bee-culture. In the February number, he refers to Grimm's experience, and what he recommends. Is it not within but a few years, that Grimm got righted on this point, and is it not within this time that Mr. Grimm realized his best results in bee-keeping? I think his articles in past volumes of the AMERICAN BEE JOURNAL will prove the same.

I have read carefully, perhaps nearly all that has been written in this country on overstocking. With this and my own experience I have come to the following conclusion:

If Novice, Grimm, and all of us, when we were yet novices, would have simply accepted Mr. M. Quinby's teachings on overstocking (we refer to "Mysteries," "Bee Pasturage," "How many Stocks may be Kept,") many of us would have done much better; say by dividing our bees in small apiaries of about fifty in one place. I am satisfied that less than this number is best in this locality. We believe that A. Grimm could have done much better long ago had he kept fewer stocks in one place. Are we not right, Mr. Grimm?

BOX HONEY.

We shall have something to say hereafter on this point. We think we can show Novice, and the rest of mankind, that we can make as much out of our bees with box honey, as can be made with extracted honey.

R. B. OLDT.

New Berlin, Union Co., Pa., Feb. 15, 1873.

Caution.

EDITOR AMERICAN BEE JOURNAL:—Being one of the sufferers from the dishonesty of Prof. Chevalley, of Switzerland, I would caution my fellow unfortunates who may receive a letter from him regarding the freight, to act cautiously, and invest no more money until they are satisfied they will receive queens therefor. I feel convinced it is only another way of getting a small remittance from those who are anxious to obtain a return from what I think will be found a permanent investment.

E. J. PECK.

Linden, N. J., March 15, 1873.

[For the American Bee Journal.]

Wintering Bees at the South---Merits and Demerits of the Italian Bee.

MR. EDITOR:—As there seems to be an erroneous idea prevalent among our bee men, that the winters of the South are the best for the successful wintering of bees, I wish to give some account of the range of our thermometer this winter.

Up to the first of December, the lowest we had the thermometer was 16° F., and that was on the twenty-ninth of November, at daybreak. Until the ninth of December, 48° was the lowest, at noon; the tenth down to 15°; eleventh, 18°; twelfth, 16°; fourteenth, 24°; fifteenth, 44°, and not down to freezing during the day until the twenty-second, when it dropped to 3°, and was intensely cold and windy till the twenty-ninth, when it ranged among the forties till the fifth of January, with fine weather. The tenth of January, 10°; fifteenth, 64°; nineteenth, 9°; twelfth, 46°. A change of forty degrees in twenty-four hours is not unusual with us.

The effect on weak stocks is disastrous. The mild, inviting, sunny morning brings the bees out from their cluster, and a sudden change of the wind from the north will chill them to death before they can "snug up" again. Strong stocks suffer in a corresponding ratio: Each sudden change kills off

more or less of the bees, until the colony is reduced by spring to less than "Hosmer's quart."

Special depositories for winter, here, are out of the question, as we have so much warm weather that it is impossible to keep the bees quiet enough to winter well.

As the convention of '72 unanimously (?) decided that the Italian bee is, on the whole, the best kind for general use; it may be too presumptuous for me to gainsay it, and as I am a queen-breeder, the "dear public" may not want to hear my opinion; but as I promise not to give my name and address, (an original method, ingeniously resorted to by enterprising queen-sellers to obtain gratuitous advertising,) perhaps I will be tolerated.

I have tried the Italian bees for a number of years, and am satisfied that they are more desirable than the black bees, in an apiary conducted on the improved plan, simply because the Italians are more easily handled, (not that they sting less than the blacks,) but, to illustrate, you open a hive of black bees, lift out a frame, and the bees act like a flock of frightened sheep, all crowd together in a mass, and hang pendant from the bottom of the frame until a bunch drops to the ground, when all the young bees begin to climb, some, the legs of the hive, and some the legs of the operator. Now I love bees, on principle; but I submit it to any unbiased man, not a queen-breeder, if it is not trying to one's Christianity to try to hold a frame with both hands, while a whole regiment of bees are "marching on" inside his *breeches*?

Now try the same thing with an Italian stock, and when you take your frame out, the bees stay on it, and if the queen is on that frame, she will continue her duties as if nothing had happened. Hence the Italian queen is much more easily found than the black queen. Here my eulogy of the Italian bee ends.

Everything else being equal, they are no better honey-gatherers, no more peaceable or prolific, and winter no better than the black bees. They will find honey when the black bees are idle, say their votaries; now, when they do this from natural sources, it is an advantage; but when they roam about seeking what weak stock they may devour, it is a decided disadvantage.

I sometimes form nuclei from black bees brought from a distance, and when the dry season comes on these honest Italians, that never rob, keep two men and a boy busy, trying to save my nuclei from total annihilation.

Honestly, I advise only those who are so situated that they can keep their bees far enough from their neighbors to prevent their mixing, to invest in the Italians, as it is utter folly for a farmer who keeps bees on the "let 'em alone" policy, to buy an Italian queen and expect in a short time to have all his colonies pure Italians.

UNA APIS.

Middle Tennessee.

[For The American Bee Journal.]

Wires to Fasten Combs in Frames.

Take No. 17 steel wire, straighten, and with a pair of wire nippers cut into various suitable lengths, then with a pair of pliers bend one end over to the length of about a quarter of an inch;

use a bradawl that will let the wires in moderately tight, as soon as the bees have fastened the combs, then remove the wires by taking hold of the bent and projecting ends with a pair of pinchers, giving a little rotary motion, and pull out. These wires can be used many times over. I have used mine two or three seasons, and like them very much.

HENRY CRIST.

Lake, Stark Co., Ohio, Feb. 15, 1873.

[For the American Bee Journal.] Artificial Fertilization.

I accept of W. H. Furman's offer of \$100 for each queen that he can see fertilized, if he will give me security that I shall have the money, and that he will take not less than ten queens.

As to R. M. Argo's offer, it is like a good many things, easier to do than to tell how to do it. Yet, if I knew his address, I would do the best I could to tell him how. I have no patent on the thing, or manner of doing it. I discovered it by having a choice Italian queen with wings all shriveled up, so that she could not fly, nor ever did. She had raised a large lot of drones, and there was a large quantity of drone cell capped over. She must have been at least one month old before she became fertilized. I wished to save her if I could fertilize her, and succeeded.

I have succeeded several times since, as Mr. Burch states. Mr. Argo has a perfect right to be a "doubting Thomas," and he may remain so as long as he wishes, still it will not alter the facts. I will say here that I only apply the remedy when necessary; but when it becomes so, I had rather lose a drone than a queen. My bees came through the winter all right, but I have lost two colonies since I carried them out. I had fifty-two stands at home.

The winter has been extremely cold, and steady cold; four full months of sleighing, and a hard winter for bees on their summer stands.

Respectfully yours,

ARAD C. BALCH.

Kalamazoo, Mich., March 20, 1873.

[Mr. Argo's address is Lowell, Garrard Co., Ky.
—ED. A. B. J.]

[For the American Bee Journal.] Sundry Items.

"The theory that queens only mate with the drone once isn't always correct." Correspondent giving his reasons why. Page 184, February number. In the spring of 1866, while raising queens, I had an observing hive in my room, which I used as a nucleus for queens. After the queen hatched I kept close watch and saw her "leave the hive and return," and supposing she had mated with a drone, I introduced her to a full stock next day, without waiting for her to commence laying, as the stock had been without a queen for some time, and it suited me better to introduce her at once. About one o'clock next day, after introducing, I noticed a commotion in front of the hive, and at once surmised the reason, and soon saw the queen leave the hive. After waiting some time for her return, I supposed her lost, but after thinking

the matter over, concluded that I would go and examine the observing hive again, and sure enough there I found her with indubitable signs of mating with a drone. She was then returned to full stock. Now this was conclusive evidence to me that I was mistaken about her having been impregnated at first flight.

The March number is at hand, and full of good things as usual. I have examined our bees this week, removing straw from caps, replacing honey-boards, and cleaning out hives. I found four stocks dead and one is queenless. "Shallow frames and single walls" will explain the cause of loss of three colonies, the other, a weak swarm in rickety box, I did not expect to bring over after the thermometer stood sixteen degrees below zero. Of the three above referred to, there was plenty of honey in the hives to bring them over, if it had only been in the right place, viz: over the cluster, instead of one side. My article in February number, page 178, had exclusive reference to wintering bees on the summer stand. Several years ago I was of the same opinion as "Novice" on "double walls," but the experience of the past three years leads me to adopt "deep frames and double walls," for out-door wintering; indeed I have been entirely successful during the past two severe winters only where the above conditions were secured.

Now if Novice don't skip this article, I would just say, don't send another circular with the "thousand and one" necessary articles, as I received the one you sent me not many days after you read my article, or if, on the other hand, Mr. Editor, you think it best that "every candid and serious bee-keeper" should not read this article, please consign it to the waste basket, thereby favoring me, as well as one who thinks he knows it all.

J. E. MOORE.

Rochester, Pa., March 14, 1873.

[For the American Bee Journal.]

Good Way to Hive a Swarm of Bees.

As I have not seen any mode or plan of hiving a swarm of bees, similar to mine, in the journals, will state the way I have done it for three years past, hoping it will give others (that depend on natural swarming) as much satisfaction as it has me.

First, the hive should be on the stand where it is to remain, with the front edge raised one-half inch to give the bees a good chance to enter. A piece of wide board, or something similar, should be placed in front of the hive, in such a way as to give the bees no trouble in reaching the hive. Have two or three light poles or sticks, of different lengths, to enable you to reach the place where the bees commence to cluster, let it be high or low. I use an old broad brimmed, black wool hat hung on the pole for the bees to cluster on—anything that will answer the purpose will do.

Now you are ready. Look! the bees are swarming. Wait until they choose a place to cluster. Soon they are clustering on a limb; see how fast they are "going for it." Now hold the hat close to the limb and shake it, (the limb,) and you will soon have the bees on the hat. Now walk off with your bees to the hive, shake off a few in front of it; they will soon commence to march in, when the rest can be shaken off. If you see another swarm issuing before

they get quiet, cover them with a sheet to keep the other swarm from uniting with them, unless you want to unite them. I find it easier to make the bees cluster the second time if I am not on hand before they all cluster, than to hive them in the usual way, by dislodging a few bees at first until I get a few on the hat, when the rest can be shaken off the limb.

There are several advantages in clustering in this way: You can hive them much quicker and easier (unless the limb is cut off, which might injure the tree, if a valuable one); there is not so much danger of two or more swarms uniting where many bees are kept; there is no danger of killing the queen or any bees, and you are not so liable to get stung, which is not very pleasant for any one.

PHINEAS LOUCKS.

Ontagamie, Wis.

[For the American Bee Journal.]

Bee Stings.

Our worthy editor of the AMERICAN BEE JOURNAL* says in a recent issue that he has no faith in the virtue of any remedy for bee stings. In this, as the term is generally used, I coincide with him; but there is an old maxim in philosophy, and a very true one it is, that if you can remove the cause the effect will cease; and it follows that if you can remove the poison from a sting you will not be much troubled by the consequences. This I think you can do. I always advise applying the barrel of a large sized key to the sting and pressing it firmly for a few seconds. You will find, upon withdrawing the key, that a small drop of a clear liquid has issued from the wound. If you would like to know whether this is poison or not, smell it or taste it and you will soon find out. The key should be applied until no poison follows its application. I would add that, like most physicians, I seldom use my own prescriptions. It is only when I get a reminder on the face, and particularly on the forehead, that I think it worth while to use a key, and then it is only on account of the swelling. If I were to get a sting over the eye in the afternoon, I would expect to rise the next morning with one or both eyes closed. By applying the key the swelling is next to nothing.

RUSTICUS.

Bucks Co., Pa.

[For the American Bee Journal.]

Questions and Answers.

I bespeak your indulgence while I ask a few questions. I will not, like Mr. Freeman "call Gallup up in particular," but would like to have any one that knows positively answer. 1st. Do (perfect) queens ever kill one another by stinging? If so, how can I manage them to witness the operation? 2d. Is the little dark spot or speck in the centre of the first yellow band of the Italian workers positive evidence of impurity? If so, where can the "Simon Pure" be obtained? 3d. How can I manage to extract honey from brood combs, with the larvae but three days old, without extracting also the food

* It is not the editor of the JOURNAL, but Novice, who expresses this view. We must not be held as endorsing all that we insert in these columns.—ED.

which is prepared for them and deposited in the cells? This is a very important thing to know. As the food prepared for the larvae tastes very strong of pollen, it imparts much of its flavor to the honey and very much injures its quality. If somebody does not answer this question, I shall take it for granted that it is improper to extract from the brooding apartment of the hive, unless we are very careful to reject such combs as have very young larvae in them. But I think I have asked questions enough for once, and will try my hand at answering a few. Commencing with question number one in the question department of the February number A. B. J., I would answer that bees hatched late in the fall, and that have taken no flight before setting away for the winter, will be found to be the last to perish after commencing to fly in the spring. Question number two: If the extracted honey is thoroughly mixed it will not separate, but different kinds of honey, if poured into a barrel, separate, with the lightest on top, and will remain partially separate, if remaining quiet; but if you empty the heaviest honey on the top, they will be pretty thoroughly mixed without further trouble. Question number four: It will always pay to double stocks in the spring, when there are not bees enough in either one to mature brood rapidly. There is one more question that has frequently been asked, viz: How to cure bees of dysentery when attacked with it in the cellar? One says, give more ventilation, and another says, less, and a third says, to take their honey away and give A 1 coffee sugar; though this last should more properly be given as a preventive. My way to cure them is, first, to fill my stove full of dry maple wood, sufficient to heat my kitchen to about 100° Far., and then bring my diseased swarm from the cellar and place them where they will warm up as quickly and thoroughly as possible. Of course the room must be dark or the bees confined to their hive. When they are thoroughly warmed up, I set them back in the cellar and find them as quiet as when first put away in the fall, with not an indication of dysentery left.

J. E. BENJAMIN.

Rockford, Iowa.

[For the American Bee Journal.]

The First Recorded Demonstration of True Parthenogenesis.

MR. EDITOR.—In the very interesting article in your March number, translated from the German of Dr. Kornhuber, occurs the following statement:

"The first direct proof of the existence of real parthenogenesis was furnished by Leuckhart, in the *Bienenzzeitung*, 1855, p. 127, where he communicates the results of the microscopic examination of a queen bee sent him by Baron Berlepsch. This queen had been hatched in September, 1854, a time when no drones existed. The next spring she had filled 1,500 cells with male progeny. On dissection, it became evident that the queen had not been impregnated. She was a normally formed female, with seed pouch and eggs; but instead of spermatic filaments, the former contained a perfectly clear liquid, devoid of granules or cells, just as in the pupae of queen."

In the October, 1866, number of the AMERICAN BEE JOURNAL, p. 74, in an article, "On the impregnation of the Eggs of the Queen Bee," I have stated

facts which prove that the *first demonstration* of true parthenogenesis was made, not in Germany, by Prof. Leuckhart, but in this country, by Prof. Joseph Leidy, of Philadelphia. Copies of this article were sent to the bee journals of Germany, but as the facts there stated were not known by Dr. Kornhuber, and probably by few abroad, I give them again to the public, and as the Am. B. J. has now a much wider circulation in Europe than it had in 1866, they will doubtless obtain due recognition.

On page forty-one of the first edition of my work on "The Hive and The Honey Bee," published by Hopkins and Bridgman, Northampton, Mass., in May, 1853, occurs the following statement:

"In the autumn of 1852, my assistant found in one of my hives a young queen, the whole of whose progeny were drones. * * * This queen had laid a number of eggs in one of the combs, and the young bees from some of them were just emerging from the cells. * * * As there were none but worker cells in the hive, they were reared in them, and not having space for full development, they were dwarfed in size, although the bees, in order to give them more room, had pieced out the cells so as to make them larger than usual! Size excepted, they appeared as perfect as any other drones. * * * The queen was removed from the hive and carefully examined. Her wings, although they appeared to be perfect, were so paralyzed that she could not fly. It seemed probable, therefore, that she had never been able to leave the hive for impregnation. To settle the question beyond the possibility of doubt, I submitted this queen to Dr. Joseph Leidy for microscopic examination. The following is an extract from his report: 'The ovaries were filled with eggs. The poison sac was full of fluid. * * * The spermatheca was distended with a perfectly colorless, transparent, viscid liquid, *without a trace of spermatozoa*.'

"This examination seems perfectly to sustain the theory of Dzierzon, and to demonstrate that queens do not need to be impregnated in order to lay the eggs of males."

L. L. LANGSTROTH.

Oxford, Ohio, March, 1873.

[For the American Bee Journal.]

Bee Disease.

It is a well established fact, with me at least, that weak colonies which have been confined to the hives for a length of time, and become chilled until they are dormant, if they revive and the atmosphere still continues too cold for them to fly out and void their accumulated foeces, will have what is termed dysentery, and will soon perish if not attended to; when, if the weather had been so they could have flown a few days before chilling, it would seemingly have injured them but little. I have frequently had weak, destitute colonies become chilled in the spring, after they had several days to fly. On taking them into a warm room, bringing them to and feeding, allowing them to fly, they would appear as well as ever. Feeding bees with liquid food in cold weather, that have been confined to the hive for some time, unless they can fly at the time of feeding, will be very apt to give them the dysentery, (if they have not been chilled.) All such bees as have to be

fed in cold weather, should be taken into a small room, with but one window, place the entrance of the hive level with the window sill, so that the bees can return to the hive, which most will by letting the room gradually cool. If the combs are much soiled, give them other clean ones instead. By observing the above hints, I have saved many colonies that otherwise would have perished. In respect to the disease among bees called "bee disease," or "cholera," I will say that I consider it altogether different from the disease or dysentery I have mentioned. In the latter part of the winter of 1868-69, at the time of the great mortality of bees in Indiana, Kentucky, and parts of Ohio, I was at Plainfield, Indiana. On learning that bees were dying in that locality, I called on several bee-keepers in hopes I could ascertain the cause of the malady. They informed me that the bees had entirely decamped from hives containing plenty of honey in the fall, before cold weather set in, others had dwindled away until there were so few bees left, that as soon as severe cold set in they perished. In this latter case, the bees generally soiled their combs, showing proof of dysentery. but where all left before cold weather there were no signs of dysentery, the combs were left bright and clean.

Strange as it may seem, whilst examining those hives and bees at that time, I found a few colonies apparently all right. They appeared to have plenty of bees, and I could detect nothing wrong about them, either by looks or smell, whilst at the same time bees had died, in some instances both sides of them, on the same bench. I came to the conclusion at that time that it was a disease of the bees themselves, and from the information since received I have more fully become convinced that my conclusions were correct. I believe it to be a disease epidemic, if not actually contagious in its nature, and peculiar to the honey bees themselves. Why should not the bees be subject to disease as well as domestic animals or poultry? One farmer's stock or poultry die or become diseased, while another's near by are entirely free from disease. I believe it to be the same with bees. Bees in one district or apiary may be dying with disease, while others near by are apparently free from disease. I can recollect, when I was a small boy, of my father losing nearly all his bees in one winter. I remember hearing him say that he could not contrive what ailed them, as there was plenty of honey in the hives. I have no doubt but it was the same disease that killed my father's bees, as that which has destroyed so many bees the past three or four years in different sections of the country. In conclusion I will say that I do not believe this disease originates from too much (or impure honey,) or from the want of young bees to winter, as some believe. I have had colonies become queenless at swarming-time, and yet enough bees would live over to the following spring to make good colonies by giving them a fertile queen. My experience is, that young bees die as rapidly in winter as old ones.

To prevent disease, keep a little fine salt scattered about the bottom and entrance of the hive, from early spring until late in the fall. If bees show signs of disease or dysentery, I know of no better way to do than to let them have a good fly, place them in a clean hive, and feed either good honey or

syrup made of clarified sugar. If they lack pollen, sprinkle a little flour on the bees.

AARON BENEDICT.

Bennington, Ohio.

[For the American Bee Journal.]

Transferring.

My plan is about like Sessaye's, page 275, vol. VII, except that the frame, with two or three stripes about three-sixteenths wide and one-sixteenth thick, is laid flat on a transferring board, and when filled with comb, large or small pieces, enough strips are put on to hold the comb and fastened with three or four ounce tacks, driven in with a hammer.

The thought occurs to me since reading Sessaye's careful way, that the jar caused by driving the tacks caused the death of the young bees spoken of on page 47, vol. VII.

A. W. DAVIS.

Walworth, Wis.

P. S.—I wish to raise queens and Italianize my stock of black bees after the white clover honey harvest, (as I shall not be at home to attend to it before the middle of July.) I, and doubtless many others, would be much obliged if Mr. Alley would inform us how to get drone eggs deposited by a young queen, after the honey harvest, as mentioned on page 190, vol. VII.

[For the American Bee Journal.]

Information Wanted.

Some seven or eight years since I saw a communication to N. Y. Farmers' Club, about what the writer (a York State farmer,) called Merino Buckwheat. He had got sixty-two bushels per acre, good for feeding, but flour from it was a little bitter. One peculiarity was that hot weather did not affect the yield as it does the common variety. Another, the blossoms are so near the color of stalk and leaf that they do not make much show. If bees gather honey from it, as they do the other variety, will it not be very valuable for midsummer bee pasture and crop? Who knows? Please report.

A. W. DAVIS.

Walworth, Wis.

[For the American Bee Journal.]

A Complaint.

MR. EDITOR.—I do not believe in having any rights invaded without entering a protest. I paid two dollars for the AMERICAN BEE JOURNAL, with the expectation of having as good a journal as could be made for that money. I paid it cheerfully, and if more had been asked, I should have paid more. I think it has been worth more than I paid; indeed I would not do without it for double the price; but still I expected the JOURNAL just as good as it could be, and I know it isn't, and I'll tell you how I know. An editor, to do his best, should have a clear head, untroubled by petty annoyances, with a cheerful atmosphere surrounding him. Now, from hints I get in the JOURNAL, I am sure that, in one respect, its editor is not so well situated as he might be, and consequently does not do as good work as he might. I refer to the annoyance caused by lack of promptness

in payment of subscriptions. I believe that I have a right to ask that my paper shall not be injured by the editor's allowing others to have theirs without paying promptly for them. I think, in most cases, if the JOURNAL ceased to make its visits the moment the payment expired, another two dollars would be very speedily forthcoming.

C. C. MILLER, M. D.

Cincinnati, O.

[For the American Bee Journal.]
Bee Keeping in Iowa.

DEAR JOURNAL.—I am not in the habit of writing for "the papers," but perhaps a rambling item from this region will not be unacceptable to your readers. Yesterday I received the February number of your, to me, *very valuable* journal, and although I did not get it till evening, I did not sleep till I had read it through. I am a beginner in bee culture, and it is but a few months since I learned of such institutions as "Bee Associations and Bee Conventions." In one of our city papers I saw a statement several weeks ago, that W. H. Furman, of Cedar Rapids, in this state, had sold tons of honey, and over one thousand dollars worth of Italian queens, the last season, and I thought perhaps I could get answers to a few questions by writing him, which I did, and got the desired information, and, besides, Mr. Furman gave me, not a *polite invitation*, but commanded me to attend the first annual meeting of the "Central Iowa Bee Keepers Association," to be held at Cedar Rapids on the 18th and 19th of January, 1872, saying, also, that it would *pay me*. Having been brought up to obey "the power that be," of course I attended the meeting, and the first evidence I got about its *paying me*, was to pay a membership fee, and then, with a goodly number of others, subscribe and *pay* for the AMERICAN BEE JOURNAL. There were between forty and fifty bee-keepers present at the convention, (six of whom were ladies,) representing or owning about two thousand colonies of bees. With others, I had the pleasure of enjoying the hospitality of W. H. Furman and wife, and took a look in Mr. F.'s cellar, and examined a few of the two hundred and seventy-five colonies of bees kept there during the winter. Mr. F. has been a successful bee-keeper for several years, disposing of tons of honey, and raising and selling a large number of Italian queens every season. I discovered a large glass arrangement in his front yard, and upon examining it, found it was an enormous, double, glass bee hive, one above the other, with the cards of honey, bees, and all the internal arrangements, in full view, and it looked so very nice and pretty that I am making one on a smaller scale, and expect to take lots of comfort watching the doings of the "busy bee" the coming season. Mr. F. uses the Langstroth hive, and, I believe, owns the right for this state. But I'm forgetting our convention. The usual complement of officers were elected, with W. H. Furman, of Cedar Rapids, as president, and Geo. W. Barclay, of Tipton, secretary. Those in attendance were there for the purpose of getting information, and I believe I was the greenest one in attendance, as might be judged by every member of the convention laughing at me when I asked a gentleman who was speaking of "fertile workers," "what is a fertile worker?" Perhaps some of those who

laughed at me knew as little about it as I did. The discussions were profitable and freely participated in. Fine specimens of honey were shown, also bee hives and a honey extractor. Nearly every one present uses the Langstroth hive. Among the resolutions adopted were the following:—

Resolved, That every bee-culturist ought to take one or more bee journals, to the end that bee-culture, as a science, may take that elevated position among the industries of the state that is eminently its due.

Resolved, That the President and Secretary of this Association be instructed to collect statistics as to the rise, progress and success of bee-culture in the state, and as to its value as a source of wealth to individuals and to the state.

The next meeting of the association is to be held at Cedar Rapids, during the time of holding the Iowa State Fair there next fall, and the next Annual Meeting commences on the third Wednesday in January, 1873, at Cedar Rapids.

With many wishes for the prosperity of the JOURNAL, I am,

Yours respectfully,

A. B. MASON.

Waterloo, Iowa, Feb. 16th, 1872.

[For the American Bee Journal.]
Bees and King-Birds.

For the last ten years I have carefully noted the habits and movements of king-birds, and have come to the following conclusion, viz: that they do eat the honey bee, and so does the purple martin; but instead of being destroyed for it, they should be protected and allowed to build their nests near the farm-house, because they drive off the hawks, crows and other plundering birds from the poultry yard. Warm afternoons in July and August, when the drone bees are out, we have seen the martins come down within ten feet of the hive and snap up the drone bees, thus relieving the workers from the necessity of expelling them from the hive and biting off their wings to prevent them from getting back to the hive. The king-bird also, we find, selects the drone, and will come afternoons and take his position on a stake in front of the hive, and when a drone bee comes along will make a rush for him, come back to the stake, give him a pick or two and swallow him. But, says an objector, what do they subsist on before the drone bees fly out? This point I settled by shooting one in the month of May, and I found in his crop the wings and legs of May-bugs. By watching their movements, I find the dragon-fly is also a favorite food for them. So, to the farmer we say, by all means do not destroy the king-birds. There is not a more watchful sentinel on the farm; and woe to the crow or hawk that comes near the farm-house. The crow dreads him, and I have seen them make a long detour to avoid the king-bird. The martins we like to have around, but as to their driving off the hawks and crows, this is a mistake. True, they will drive at the hawk, but it has very little effect.

J. L. HERSEY.

Tuftonborough, N. H.

QUERIES.—Which do you consider the best for bee-pasture, white or alsike clover?

I find that bees, when they swarm and go off to a hollow tree, generally select it near a meadow or pond. Why is this?

A friend who keeps bees says he prefers to let his bees set out on their summer location, without any covering, or stopping them up. He says there will just about so many die, and he prefers to have them fly out and die on the snow, rather than in the hive. Is this a fact?

And he says also, about five days before they swarm the queen bee comes out and goes off and selects a tree for their future home. Is this so?

J. L. H.

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[For the American Bee Journal.]
Travel in Italy.

(CONCLUDED.)

As soon as we arrived in Borgo Priolo, we placed the bees carefully in a big willow basket, and this was fastened on the wagon, together with other baskets containing fruits that had already been loaded on it, for the purpose of starting for Milan on the next day.

During supper, the *incettatore* talked with us about his trade. He sells fruits every year to the amount of fifteen or twenty thousand francs. I observed that his fruits, being pressed together in his large baskets and carried in a wagon without springs, must necessarily arrive in rather poor condition. He admitted this, and said that sometimes he could not obtain more than half price for his fruits, on account of their bad condition. I then told him that it would pay him to buy two horses and a spring wagon in place of his miserable equipage. He thought it would pay, and he had the means to do it, but his father had done as he did and he was not disposed to change his habits. However, as he understood that his fruits would keep better in smaller boxes, he asked Sartori to send him one hundred fruit boxes, *à l'Americaine*, for trial.

Although we had come back early from our expedition, as I was very tired, I left Sartori with our host and went to bed. The house in which I was, was an old stone building with walls two feet thick, and small windows, shut up with an iron grating, as though the house had been built to stand a siege. The kitchen was the only room provided with a chimney. This chimney was ten feet broad, and to prevent the enormous current of air from being felt by those who warmed themselves by the fire, they had built, between the door and the chimney, a wall that projected six feet into the kitchen. The stairs that led to the upper apartments were made of flag stones five feet long and two feet broad. The room in which I slept with Sartori, had two windows on two opposite sides. One of the windows had glass panes and the other was closed with paper.

As we were to take the train only at half past seven in the morning, I thought that I could sleep longer than on the preceding nights. But the *incettatore* woke us at one o'clock. In computing the time that was necessary to go to Calcababbio with the mule, I understood that we would not arrive too soon. Our host evidently supposed that we would ride on his cart; he was not afraid of overloading his mule. But we concluded that the trip would be more pleasant for us if we went on foot, and we started ahead. At five o'clock we arrived at the station. It was closed. A coffee-

house near by was open, and after having drank a good cup of coffee each, we went to sleep on our seats. At daylight we returned to the station, and as we looked around us we ascertained that we had never seen this place before. We soon found out that we were not in Calcababbio, but in Casteggio, on another railroad line. Luckily, there was a train passing that corresponded with that of Calcababbio. Sartori sent a dispatch (price 10 cents) to the *incettatore*, to inform him of what happened, and asking him to send the queens, and three hours after we arrived in Milan.

My travels in Tessin, Upper Italy, Piedmont and Lombardy permit me to form an opinion on the origin of the Italian bee. To my judgment, this race did not originate from a cross between the black and Egyptian bees, but is the result of the improvement of the common race by the climate and natural selection. Egyptian bees could not modify the common race by crossing, so as to establish the present variety, unless some bee-keepers had imported them on a large scale, for we know how rapidly all trace of Italian blood disappears when put in contact with a large quantity of black bees, if no efforts are made to preserve it. Besides it would have been necessary that not only the Italians but also the Greeks had made importations of Egyptian bees, for the Italian bee has existed in Greece for a long time. The ancient authors speak about this variety and advise to give it the preference. Honey was held in great honor among the ancients, as they did not manufacture sugar, and bee-culture was a flourishing branch of industry, if we are to judge of it by the great number of Latin and Greek words, mostly Greek, that have reference to the industry of bees. The different Greek dialects have no less than fifty words derived from the word meli (*meli*, honey.).

The mildness of the climate of this part of Europe has necessarily had, during a long period of time, an influence on the black race, by perfecting it. The inhabitants could not help noticing this change, and comparing this new race with the other. And, the authors having praised the qualities of the new race, it is naturally probable that every bee-keeper preserved from brimstone the quietest and brightest bees.

Such is, in my opinion, the origin of this beautiful race. What induces me to think so, is the fact that in the plains of Lombardy I found the bees all exactly similar, *i. e.*, all had very narrow black stripes on the yellow rings of the abdomen; and as soon as I swerved from the plains into the mountains, either in Switzerland or in Piedmont, the black stripes were broader and the bees more aggressive. At a certain distance in the mountains, I found no more bees whose queens were worth importing, although it was certain that they were not hybrids, but the yellow rings were almost lost in the black stripes. I even found, in several hives, a few bees that were completely black.

I say that I am certain that those bees were not hybrids, because I cannot imagine how this hybridization could originate, the Alps being there with their insuperable barriers. If it is objected that what is insurmountable for man, may not be so for winged insects, I will answer, that if the mixture of the races could have taken place on one side of

the Alps, it would have also taken place on the other side. I ascertained *de visu*, and also by inquiry, that there were no Italian bees on the north side of the Alps in the districts of Vaud and Valais. It is, therefore, natural to suppose that if the mildness of the climate of the plains of Italy has modified the color and temper of the bees, the labor that the mountains imposed upon them in the vicinity of the Alps, together with a more changeable and inhospitable climate, must have diminished, if they have not altogether prevented this transformation, although the latter must have been considerably helped by the proximity of the apiaries of the plains.

Some apiculturists will ask whether it is not to be feared that the Italian bees will turn back to the old race again, when they are removed from the country of their birth; for if the circumstances of the Italian climate have modified these bees, the absence of such circumstances must have the contrary effect. It is to be supposed that at some remote time, this return to the old race may possibly take place. But as the change for the better has taken a long succession of centuries to be effected, the *reversion*, likewise, will not take place for a long time to come, and neither ourselves nor our children, nor even our great-grandchildren, will witness the deterioration of this beautiful race.

Another point on which I wished to become enlightened was this: Do Italian queens produce daughters exactly similar to their own selves? I saw over five hundred queens, and even in Lombardy, where the bees are the nicest, I did not find all the queens alike in color.

Those who give this quality as a sign of purity, are therefore completely in error.

I saw queens of all shades, from yellow to black, and the officers of the Central Society of Bee-Culture of Milan, confirmed to me what I already believed, viz.: that the dark queens are the best. During the trip that I have related above, I saw a queen whose abdomen was entirely black. Sartori was going to kill her, but I noticed that the bees were good looking, and that the hive was full of brood. I kept her, and as I could not deliver her to any of our American breeders, I marked the box. She was alive at the arrival, and I introduced her in a hive. I am convinced that she will prove as good as any of the queens that I preserved.

I have a few words more to say about the importation of Italian bees, and the risks of this commerce. Mr. H. A. Burch asks, whether some Yankee could not devise some means of succeeding in this business. The importation of queens, like the wintering of bees, is not a matter of imagination, but of experience.

The shippers know how they pack the bees, but as they do not see them on their arrival, they do not know the causes of failure. On the other hand, the person who receives the bees can hardly understand the true causes of mortality during the journey.

Having packed with my own hands three hundred and forty-eight queens, and having ascertained their condition on their arrival, I could readily perceive the true causes of mortality. I will not give them here, but I will say, that for this, as for wintering, apparently trivial causes will bring a disas-

ter, and that I now understand why I received an invoice of queens alive after thirty-one days, when, from the same breeder, other invoices were all dead after twenty-three days only.

As it is important for apiculturists to procure queens of uncontested purity, to breed from, not only for queen-breeders, but for bee-keepers, who, like myself, raise bees mostly for the yield of honey, I intend to renew the trip that I made last year. I will start in June, so as to come back earlier. That time is the best to procure young queens from second swarms.

Many bee-keepers complain of having had imported queens that did not live more than one or two years. This is certainly caused by the age of the queen. Importers should always order young queens, even if they have to pay a higher price for them. And if the shippers are honest, they may be certain of getting long-lived queens.

Let me, therefore, say to those who are willing to go to some expense to procure the best Italian bees, help me by sending early orders, either to Mrs. Tupper or myself, and I will try to prove that I have at last found the true conditions of success in the importation of Italian bees. CH. DADANT.

Hamilton, Ill.

Reports, Experiences, and Opinions.

James Bolin, of West Lodi, O., writes:

The yield of honey in the season of 1872 was generally very light in this section. This was not owing so much to the want of honey in the flowers, as it was to the want of bees at the right time, when honey was to be had.

The weather was too cool for bees to be out of their hives the most of the time during the blossoming of fruit trees; so they missed, or nearly so, their first harvest, and as a consequence did not begin to breed freely until white clover was in bloom, and by the time they had become strong enough to do anything the honey harvest was about over, so that a great many stocks did not collect more honey than it will take to winter them, and some not even that much. The result of last season, with us, shows that the adage that "every man must be the architect of his own fortune," applies to bee-keeping with as much force as to any other pursuit; for where bees were stimulated by feeding in the spring, so as to have them strong when the honey harvest came, the yield of honey, although not equal to that of former years, was reasonably good. My best stock gave me one hundred and sixty-eight pounds of honey and one swarm; and I have a number of stocks from each of which I obtained over one hundred pounds of box honey. I extracted all the honey from one swarm on Monday, and again on Friday at the same hour, and the yield was forty-eight pounds the last time.

I am using the Langstroth hive; the caps, as I make them, holding twelve four pound boxes. I found last summer that when I had twelve such boxes on some strong stocks and they were full of bees, that there would still be a large cluster hanging outside. I did not want to divide them at that time, as I wished to get all the box honey I could; I therefore resolved to try an experiment, and see

if I could not put them to work in boxes. So as soon as the boxes I put on first were about two-thirds full of comb, I raised them all up and put twelve more empty ones under them; thus having twenty-four boxes and two caps on one hive, by taking the cover off one cap, and putting that on the hive, and the other cap on the top of it. I found that a strong stock would fill the entire twenty-four boxes almost as soon as they would twelve, as it gave them all room to work. In this way, I obtained almost twice as much honey from stocks treated in the above manner, as I did from others equally as strong, but on which I only put twelve boxes at a time.

One of my bee-keeping friends in this county stated some time ago, through the JOURNAL, that with him the hybrids gave the best satisfaction as honey gatherers. Having been frequently asked my opinion on the subject, I would say that all my experience goes to show that as long as honey is plenty, a hybrid stock will gather as much honey, perhaps, as a stock of pure Italians will, but no more; but after white clover and basswood blossoms are gone, one swarm of pure Italians will store as much honey as two swarms of hybrids, since after white clover and basswood are gone, bees in this section have to depend principally on the second crop of red clover for the most of the honey they obtain, and pure Italians are much better workers on that than the hybrids are.

A. W. Dawley, of Mankato, Minn., writes: "All bees that were divided and put into winter quarters on the Hosmer plan have mostly died this winter. Hosmer has lost, I understand, about sixty stocks, or rather, as I call them, nucleuses."

M. S. Klum, of Sherman, Texas, writes: "Mr. Furman says he would like to have bee-keepers try watermelons for bees. During the dry weather last fall I cut melons open and set them with all the rinds we eat the meat out of, and my bees visited them in large numbers, and I suppose stored some honey from them."

Samuel Byram, of Mitchellville, Tenn., writes: "Quite a number of bees have died during the cold season here—some have lost half, and others one-third of their stocks."

L. B. Cullen, of Columbia, Tenn., writes under date of March 17:—"Bees are doing well, plenty of drones out."

N. H. King, of Folsom, California, writes:—"The best honey here is obtained in these foothills, where the buckeye shrub abounds. The bees store much good honey even from the buckeye, but it has the curious effect of deforming the young bees, causing them to come forth minus a leg or a wing, and also at the close of the season, the old bees, or most of them, turn to robbing at a furious rate, till the honey is all consumed. Then the robbing ceases, and most of the stocks recuperate from the honey-dew or fall harvest. I know of but three stocks besides my own, within several miles of me."

Albert Potter, of Eureka, Winnebago Co., Wis., sends us a full and interesting account of his experiments in wintering bees. He tried a straw house, double-boarded hives filled in with cut straw

and chaff, putting in the house cellar, and various other methods; thinks the cellar plan the best, as he lost fewer that way than any other. He thinks Novice wrong in advocating extracted honey so exclusively, as he could only get 10c. a pound for it, and that with difficulty, while box honey sold readily at 25c.

J. F. Bingham, of Alleghan, Mich., writes under date of March 17:—"My bees were taken out yesterday after just four months of total darkness, in good order; they had natural honey only."

G. T. Fearon, of Pratt's Hollow, N. Y., writes:—"The past season has been a very poor one for bees with us. I commenced the winter of 1871-2 with 445 stocks. By the following June I had lost 170 of them. They were wintered mostly in the house and cellar. Those that wintered out-doors I think did the best, as they had a fly in February. I lost a good many of those that were wintered in the house and cellar by leaving the hives, queen and all, and going into other hives; also carrying out so many on the same day, they got to robbing and followed it up all the spring, so that I lost more after I set them out, than I did in the winter. I also lost a great many by the queens dying from some unknown cause. The past season I have not got honey enough to pay for the sugar that I have fed. The past winter I commenced with 320 colonies. I am wintering mostly out-doors, with snow shoveled around the hives for protection. I have already lost 30 stocks, mostly, to all appearance, by the bees eating up through and not moving to get to their honey. I am in hopes I shall have enough left for seed to fill up some of my old hives, and use up some of my old comb."

T. E. Griffin of Owensboro, Kentucky, writes:—"Well, old BEE JOURNAL! It has now been one year or more since I began to read your intelligent pages, and I can say that I have been very much interested and instructed. I have learned something about the world and its ways, as well as much about bee-ing."

A. W. Davis, of Walworth, Wis., says:—"I would be pleased to see in the A. B. J. one or more lessons in the A, B, C, or first principles of apiculture, for those that are just beginning (or intend to) in scientific bee-keeping. I don't suppose many are as thick-headed as I am, and I don't want any to be two years, as I was, learning the necessity of, and how to keep stocks strong, and many other things. Therefore, will some of the veterans give us a chapter or two on management for the season, something like the following: Subscribe for the AMERICAN BEE JOURNAL; get bees into moveable frame hives; contract the hive by division board, for what purpose, and when, and management until hive is full of bees; stimulate, for what, when and how; ditto midsummer, if dearth of honey, and to end of season.

Martin Russell, of Randolph, Wis., writes:—"Bees suffered fearfully in this locality a year ago, but this winter they have gone through better, although it has been very severe."

A. B. Mason, of Waterloo, Iowa, writes, March 18:—"Many colonies of bees have died in this

region the past winter, all that I have seen, of dysentery. Mine have come out all right, and are increasing rapidly in numbers."

Adam Grimm informs us that he has lost 22 out of 620 colonies this winter, and that about one-eighth of his stocks are weak. They were wintered in-doors.

Wm. Hazen, of West Hartford, Windsor Co., Vt., says:—"While many report the last season a poor one, I can report it good with me."

Albert Bull, of Bloomfield, Province of Ontario, writes:—"I have done very well the past season with my bees. I took from three separate hives, (Langstroth), two-story, nine frames in the lower, and nine in the upper, 125 to 130 pounds each. I took near two thousand pounds from sixteen stocks."

W. Spedding, of Port Sanilac, Mich., writes:—"Last season I had three stands of bees which yielded over 300 pounds of nice box honey. In the fall I had seven stocks; now I have six. I wintered them on their summer stands, but would prefer to winter inside if I had a suitable place."

M. G. Palmer, of Portland, Me., writes:—"I usually keep from 15 to 25 colonies for the pleasure it affords, and to prove that bee-keeping is not a lost art in Maine. Good honey in small boxes usually retails here for 50 cents per pound."

R. Bristol, of Farmington, Ill., writes:—"I have lost over half my bees the last winter, and feel almost discouraged, but will 'try again.'

Jno. F. Dipman, of Fremont, O., writes: "I have lost seventeen stocks of bees out of twenty-one this winter, my bees being all in good condition last fall."

S P. Shipley, (Whistler,) of Olena, Huron Co., Ohio, writes:—"I started in winter with forty-five swarms. I have lost three by starvation. I thought they had enough honey to do till I could feed again, but the winter proved so cold that they ran out. My plan of wintering is as follows: I place my bees along in a row eight inches apart, facing the south. I then set a board at the back of the row, six inches from the hives, and pack dry sawdust between each hive, and at the back between the hive and the board. This sawdust covers the bottom of the hive up to the hood, I then take off the hood and the glass honey board, and lay some strips of wood across the frames, and cover with a piece of carpet. Then I place the hood on top of the hive. I set a board in front of the row of hives about six inches from the hives, and tuck oat straw between the board and hives, so that they can get air through the straw. It breaks the first blast of the wind, and shades the warm sun from the entrance. When the weather will admit of it, I lay down the board in front, and pull the straw away, and let the bees have a flight. They have had but two this winter. I lose but few bees on this plan, though I don't recommend it as better than cellaring them. But it is the best way I ever saw of wintering out-doors. Another thing; if there is snow on the ground before I let them out, I cover the snow in front and back of the hives with straw for the bees to light

on, and as soon as they return to the hive, I take up the straw and save it for another time. As soon as the weather will admit of moving them to their summer stands, I will do so, and commence feeding on Mr. Hosmer's plan. As soon as I get one hive full of brood I will set an empty hive on the top of the full hive, which makes a perfect double one, and I can take off one half of the top one and place an empty half in its room, while I extract the honey from the first half. I do not want my bees to do more than to double. I want strong swarms to gather honey, and this plan is a good one to increase or strengthen each colony."

James Bolin, of West Lodi, O., writes:—"Where bees were properly taken care of and housed the past winter they came through in good condition, with but few exceptions, being strong in numbers and ready for the summer's work. I have mine at work on rye flour, every pleasant day, and although we have had but a few days that were warm enough for them to be out of their hives, yet they have carried in over one bushel at this date."

Where bees were wintered on their summer stands, they have suffered badly with dysentery. I think that at least half of those wintered out of doors have died with it, whilst mine, that were wintered in a warm house, are nearly, or quite exempt. A neighbor, living within half a mile of me, has lost five out of eight swarms with it. Does not this go to show that, with us, at least, it is caused by cold? I came to the conclusion several years ago, that where bees suffered with it, in this section, it was caused by one or more of three causes, viz: too much honey, too few bees, or cold; all of which may, with proper care, be remedied by the apriarian."

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[For the American Bee Journal.]
Something About Hives.

"Novice" says that he has had many letters making inquiries about the Bay State Hive, and about several others that he named. Well, what of that? Will "Novice" please tell the readers of this journal how many of the hives he names he has in use? If he has no more of them in use than he has of the Bay State Hives, he had better tell all those who make such inquiries that he don't know about them, and through the columns of the A. B. J., too, if that suits him. Better not give an opinion about that of which you have had no experience, and of which you know nothing.

"Novice" further says that we have given the readers of this journal to understand that the Bay State always gives a good quantity of surplus. So they do, when other hives are doing well, if they are managed and treated the same. I don't believe that there is a reader of this journal who is foolish enough to believe that bees will gather and store honey in our hives when they do not in others. Such an assertion is an insult to the readers of this journal, and I don't believe one can be found among them all who so understood me.

"Novice" acknowledges in his attack on the Bay State Hive that the owner of the hive in question could have realized as much profit from the Bay State Hive as from any, if he had treated it the same—a job he did not undertake, as he supposed the frames

came out hard, or with considerable trouble. Now the frames are as easily removed from the Bay State Hive as from "our two-story Langstroth," after they have once been taken out. Let the frames remain in any hive which has a strong colony of bees in it, one week, with no boxes on it while forage is abundant, and the bees will stick them in so that it will be difficult to remove them. It is no more so with the Bay State Hive than it is with any other in this respect.

In opening a Langstroth Hive I always commence on one side and take out the first comb that I think will come out the easiest. With the Bay State Hive, commence with the rear comb, that will come out the easiest, generally, and I never found any more trouble in removing frames from our hives than I did from others, when the combs were built within the frames, as they should be, and will be if the bee-keeper understands his business. Any bee-keeper who cannot keep the combs in his hives straight, and exactly within the frames, had better not use them, as they are about the same as worthless to him. Why not show your friend who has this hive in use how to remove the frames? That hive has not got close top frames, and you will not get stung.

Again "Novice" says: In our opinion every colony should yield at least fifty pounds of surplus, the *worst season*, and that can only be done with the extractors. Have "Novice's" bees done this since he first got the extractors? I guess not, and there are thousands of bee-keepers all over the country who know that there are seasons when their bees do not gather one-half that amount of honey. We bee-keepers, who don't pretend to know much, found that out years ago. I have always made it a rule to put boxes on where a full colony were stowing honey in the rear or outside combs, and when they don't do that, I am of opinion that the boxes and extractor had not better be used. We have had one season here in New England, within seven years, when not one ounce of honey could be taken from a full hive of bees, not even with the extractor. We were not a novice at the business that season by any means, but we had movable frames, and two-story hives. I examined several of my best colonies every pleasant day, and only now and then one cell of new honey could be seen, and had we not had considerable experience in feeding sugar syrup to our bees, we should probably have lost all we had. We fed them all they needed in August and September of that year, and we never had our bees winter better than they did the following winter. About that time we were fully convinced that sugar syrup was much better than honey for bees to winter on, and what thick-headed fellow would not have discovered the same thing?

Our bees were confined to their hives a long time, and when allowed to fly in the winter, the snow was not so highly colored in front of the hives as it is when bees winter upon their own stores. Then, again, the bees kept very quiet, and but few died. This part of our story is intended as a reply to that part of "Novice's" article on page 121, December number. He says: "Alley fed sugar syrup to his bees for 15 years, and thinks we knew not why we succeeded until he mentioned it in the JOURNAL." Gracious! don't self-conceit stick out in some people? Why, my good friend, we knew why we succeeded before you knew how many legs a bee has; yes, and we might say that we knew not only that

fact concerning bees, but many others, too, that you think are original with yourself. You must not be so foolish as to think that we are ignorant of what we are doing because we don't sit down and write all our thoughts, and note every action, and send it to the JOURNAL. When we have anything that in our opinion will interest the readers of the JOURNAL, we take great pleasure in sending it to the Editor, and let him do as he pleases with it, and we have received the thanks of many readers for valuable information gleaned from our articles.

Now I will venture to say that I have written and told to more than one hundred bee-keepers within one year, the advantages of feeding sugar syrup to bees to winter upon. Last March I had some correspondence with a man who has imported several lots of queens, and with the usual poor success. I gave him my idea for preparing food for the bees during transit from Europe to America, and that was this: Have the food consist of sugar syrup, and put in the combs here by the bees and sealed up, and take it to Europe. Make the shipping boxes there. I gave as my reason for so doing this: that the bees could stand the journey better, and that they would not want to fly as often as they would if honey was their food.

Now it strikes me that I knew why it was that sugar syrup was better food for bees than honey. This sugar syrup business is not original with me, more than it is with "Novice," but I got it from bee-keepers fifteen years ago, in the town of Reading, Mass., and most any of the bee-keepers in that vicinity can teach some of the knowing ones of this day their A. B. C.s in bee-keeping. They had the Langstroth hives in use, and those famous "two-story hives" which we hear so much about, were in use in those days. "Novice" fears that he will lose the "laurels." Don't be frightened, I don't claim them, and you are welcome to them all.

We will say to those bee-keepers who have seen the cut of our frame on page 552, that we do not now use the frame we then described, and further, that the style was not changed on account of any difficulty in removing them, but for the purpose of making other improvements in the Bay State Hive. The frame we now use is not so deep by several inches, and with the improvement we have made in frames, we venture to say that no frame in the world can be more easily removed from the hive than ours.

Now "Novice," why not own up and tell the readers of the JOURNAL why it is that you are so prejudiced against all other hives, except the "two-story Langstroth Hive as we use them?" Why not tell them that you have a hive to sell them? Also a tea-kettle feeder, metallic corner-pieces, etc.? Thus people will know just as well as I do why it is that other hives are so worthless in your estimation.

You are doing your level best to prejudice people against all other hives, and giving them to understand, at the same time, that your wares are just what they need, and that they must have them or fail in bee-keeping.

Let me inform all who have not been through "the mill," that all these "jim-crack" fixings, such as some people advertise for bee-hives, are worse than useless; the more you have of them the poorer will be your success, and the sooner will you abandon the pursuit in disgust.

Friend "Novice," I am going to repeat just your words: "I don't say what I have above to injure your wares, but only wish to add my mite for the general information of all concerned."

Now, for an experiment, let a man set up the business and commence with our movable comb hives and boxes, and then send and get one of those "two-story tea-kettle feeder-honey-knife-extractors-without-bottom-metallic-corner-quilts and iron-block," with all the other "jim-crack" notions, and if he don't find the simple hive, with boxes, the cheapest, most profitable and the easiest in the end, then I am mistaken. "Novice" claims to have extra good success in bee-keeping. I wonder if his neighbors do the same? Of course such good success must be contagious in that vicinity. I never knew that some bee-keepers abandoned the pursuit in disgust, some ten years since, on account of getting so little box-honey. Nearly all the bee-keepers in the State of New York have their honey stored in boxes, and send it to market by the ton. Consider for a moment the vast amount of box honey Quinby has sent to the New York market in boxes. I wonder if he didn't find it profitable keeping bees before "two-story Langstroth Hives, tea-kettle-feeders and honey-extractors" were invented? I wonder if those bee-keepers in New York who send their honey to Boston in small boxes don't find it profitable to have their honey put up in that style.

The man who undertakes to make bee-keepers believe that the use of the extractor is the only way to a fortune in bee-keeping, has got a big job on his hands, until he first convinces the people that all liquid honey is "simon pure." I shall cling to the opinion that the use of small boxes is the safest, easiest and only way to make bee-keeping profitable.

Why is it that "Novice" feels obliged to answer all questions of private correspondents through the columns of the JOURNAL? Would it not be just as well to reply through the JOURNAL only to those who asked through the same? I would like to see the names, in the JOURNAL, of all that long list of persons who have asked his opinion of the Bay State Hive.

H. ALLEY.

Wenham, Mass., Dec. 3, 1872.

P. S. I wish all those who have purchased hives of me to send me their name and address, as I intend to give each of them an individual right to make and use the Bay State Hive.

H. A.

[For the American Bee Journal.]
Of the Bees that Were, and a Few Questions
to Hosmer.

In the February number, page 187, I find an article from Mr. Hosmer, discussing the disastrous mortality of bees last winter. He lays it all to the old bees. I hardly think that fair. He says they did not breed late enough in the fall to winter an army of young bees. We had 46 stocks last fall, all in good condition when put in their winter quarters, and have lost them all!

Now let us see in what condition they were. All the honey obtained was extracted, and the most of that was extracted in the fall. We extracted all the hives a few days before honey-gathering ceased, and they only had barely time to gather enough for winter, consequently they did not fill their brood-

chambers with honey. Some of the honey was left uncapped; but as a general rule it was well sealed up.

On examining them about the 20th of December, I found two dead, and one in a dying condition; the bees were clustered under the honey-board, (I use building paper tacked on a frame made of laths,) and the outside of the cluster were dead; I gave them more ventilation, thinking perhaps that was the cause. I also found signs of the dysentery in about half a dozen hives. At my next examination, I found six dead, including the one just mentioned, and found that the dysentery had affected nearly all. The winter was so severe that I could not give them a chance to fly. They kept on dying in spite of all our efforts to keep them alive.

Now, Mr. Hosmer, how is it? If they died because they were too old, why did they not die in former years in the same manner, and why is it that they are all affected with the dysentery, and that, too, in an aggravated form? Then such people that hardly ever look at their bees, would lose them nearly every year. One of our neighbors has lost four-fifths of his bees, another one-half, and still another did not lose one! and neither one of them stimulated their bees in the fall. You say if it is the "epizootic," why it does not effect them all? The same question can be asked in regard to your theory. If it is because they are too old, why do they not all die—that is, those that were under the same management?

Respectfully yours,
J. D. KRUSCHKE.

Berlin, Wis., March 21, 1873.

Letter from Mr. Geo. S. Wagner.

D. M. WORTHINGTON, Esq.,

Dear Sir:—I to-day received the March number of the BEE JOURNAL, and find your allusion to the death of Mr. Richard Colvin. I was not aware of his death until about the tenth of February, when Mr. Langstroth passed through here, and since then I have been so much engaged that it would have been impossible for me to have prepared a fitting notice of Mr. Colvin. Indeed, I would greatly prefer that Mr. Langstroth should prepare the notice, as he could, I know, write one that would do greater justice to the merits and attainments of Mr. Colvin than any efforts on my part. I write this to let you know that it was not neglect or indifference on my part, that the notice was not prepared, for no one could have a higher appreciation of the honesty, ability, and earnestness of Mr. Colvin than I. When I last met him, some four years ago, he was strong and robust, and I should have judged had a long career of usefulness before him.

Yours truly,
GEO. S. WAGNER.

Fearing that some readers of the JOURNAL may have formed an impression, from what I said in the March number, that there had been neglect or indifference on Mr. Wagner's part, in regard to a notice of Mr. Colvin's death, I thought it but just to him to obtain his permission to have the above letter published. DANIEL M. WORTHINGTON.

St. Denis, Md., March 22, 1873.

THE AMERICAN BEE JOURNAL.

Chicago, April, 1873.

Proceedings of the North American Bee-Keepers' Society.

It appears that this JOURNAL is the only one that has faithfully published the official report of the society's last annual meeting. It was resolved: "That D. L. Adair be employed as reporter of the society, and that a full report be had of the proceedings to be published in the different bee journals and agricultural papers." Fifty dollars were set apart as remuneration to Mr. Adair for preparing the report, and supplying the various periodicals with it. The society spared neither pains nor expense to secure a good report, and the fullest publicity to it. Yet, some, who promised "a full report," have mutilated and abbreviated it to suit themselves, and *only in the pages of the AMERICAN BEE JOURNAL* has faith been kept with the society, and justice done it. Bee-keepers will please make a note of this.

A Fling at Apiculture.

"People who—deluded by the one-sided statements of interested apiarists—are all ready to embark in the bee business, with the expectation that there can be no possible dash of bitterness in their cups, are requested to consider the complaint that comes from Marysville, Ohio, to the effect that the honey-makers in that locality are generally all dead from frost or starvation."

The above, which we clip from the agricultural department of the *N. Y. Times*, is a specimen of the unfair manner in which bee-keeping is dealt with by not a few who ought to know better. We are not aware that any apiarists, however "interested," are in the habit of deluding people into bee-keeping by representing that they cannot possibly have "a dash of bitterness in their cups." It would be contrary to all experience, and very foolish, to do so. "Interested apiarists" contend that, properly managed, bee-keeping is a fairly remunerative branch of rural industry, and they frankly own that, like any other business, it is liable to reverses and mishaps. But it is mainly the spirit of the above quotation which is objectionable. We presume the agricultural editor of the *N. Y. Times* did not gloat over the prevalence of rinderpest among cattle, or the epizootic among horses, and why should he gloat over the mortality among bees? Ought he not rather to feel and express regret and sympathy when disaster befalls one of the productive industries of the land? Did he warn

people to let cattle-breeding alone when the herds were decimated by rinderpest? Or when a hard winter killed out the wheat crop, did he denounce grain-growing as a snare and a delusion? "Fair play is a jewel," and we want it for apiculture, as well as for other rural pursuits.

Appeal on Behalf of Mrs. Tupper.

We are sorry to learn that on the 7th of March Mrs. Tupper's house took fire, and the devouring element made its way to the cellar, destroying a number of her bees. The advance proof of an article from the *Bee-Keepers' Journal*, containing a strong appeal to the aparian public for help in various ways, has been sent us for insertion in the A. B. J. But we must have a fuller account of the facts before we can publish any such appeal. It contains no statement of Mrs. Tupper's actual loss, and suppresses the fact that she was insured. It informs us that Mrs. Tupper had "*a number of stocks buried, with choice queens, part of them imported.*" From what we know as to the condition of Mrs. Tupper's apiary last fall, we are inclined to think that the insurance and the choice colonies buried out of doors will reduce her loss to a figure so trifling that the public need not be asked for help.

The appeal in question speaks of Mrs. Tupper as "one to whom apiculture is more deeply indebted than any other." We scorn to strip well-earned laurels from any brow, but there is neither truth nor justice in so extravagant a claim. Nor will it be conceded by intelligent and well-informed bee-keepers, until the names of Huber, Berlepsch, Langstroth, Quinby, and others, are forgotten.

Bee-Keeping.

BY THE EDITOR.

Bee-keeping, though pursued by some as a special business and by others as a pleasant pastime, is essentially one of the economies of the farm, and in the Old World a farm would hardly be thought completely stocked without a few hives. In this country bee-keeping by ordinary farmers is the exception rather than the rule. Indeed, it is looked upon by not a few as a sort of weakness, a species of hobby-riding, when a farmer takes to keeping bees.

Now we believe in what is called "mixed husbandry." The tendency is too much to go into one particular line of things. A few years ago the mania was for wheat growing, because wheat was the great cash article in the produce market. The rage in this western country has been too much for

corn. When Merino sheep were bringing fancy prices, everybody was crazy to go into them. Not long since the rural passion was for hops. Just now, perhaps, the inclination sets toward stock-raising and dairying. But we contend that the wiser plan is to pursue a miscellaneous, general system of farming, except in those cases in which some peculiarity of soil or location dictates a specialty. Farmers should avoid as much as possible putting all into a single venture. They should try all expedients to increase their gains, and if one source of profit fails another will succeed. Nor should they despise littles, for, according to the old proverb, "many a little makes a mickle."

Bee-keeping well deserves a place among the lesser industries of the farm. As it is wise to keep poultry to pick up the waste grain and stray seeds, so it is wise to keep bees to gather the nectar of clover, orchard blossoms and wild flowers that would otherwise go to waste. It costs but little more to make a start in bee-keeping than it does to make a start in poultry-keeping, and season for season we will match the bees against the chickens, with large odds in favor of the bees.

Bee-keeping used to be a very crude affair. It was carried on with gums or straw hives, inside of which everything was fastly fixed and all a realm of mystery. The bees were left pretty much to themselves, until the close of the honey season, when they were brutally smothered with brimstone fumes; and the colony being thus exterminated, its stores were appropriated to the use and luxury of the owner. Now we have the movable frame hive, which gives the bee-keeper access to the interior of the colony, perfect control over it, and liberty to take the surplus honey without killing the bees. With this form of hive the loss of swarms by their going off to the woods can be prevented, queens can be given to stocks that become destitute of them, and weak colonies can be strengthened by giving them comb, bees, or honey.

The invention of the honey extractor, or as some American apiarists prefer to call it, the *melpult*, is another great step in advance. By the use of this contrivance the yield of honey, in a single season, can often be doubled, and even trebled. By the application of centrifugal force, the honey is thrown out of the combs, almost to the last drop, and on replacing the empty combs in the hive, the bees, as in duty bound, at once proceed to refill them. Often when they wholly suspend work, and will not put a drop of honey into a surplus box, though there is plenty of it in the field, they will replace the honey of which the extractor or *melpult* has deprived them. The reason of this is obvious.

Instinct teaches them to fill the body of a hive with a store of sweet, but when that is done their task is accomplished, and they are not covetous, like man, who goes on laboriously accumulating even after he has enough. They have not only a craving instinct but an instinct of satisfaction. The well-filled hive appeals to this latter instinct. They know how to "rest and be thankful." Take away a portion of their stores and the craving instinct comes into play again, and drives them forth as busy workers to the fields for fresh supplies.

Another modern improvement in apiculture is the importation and breeding of superior bees. Bees, like larger stock, deteriorate by in-and-in breeding, and may be improved by crosses. There are inferior and superior breeds of bees, just as there are of poultry, swine, sheep, cattle, and horses. For a few years past Italian bees have been largely imported, and though it may seem an extravagant thing to give five or ten dollars for a queen bee—a little insect only about an inch long, it is no more so than to give a hundred dollars for a superior bull calf or ram lamb. The Italian cross has greatly improved common black bees, by giving them "a dash of fresh blood," as stock-breeders would express it, and by imparting to them desirable qualities. The Italians are a hardier race; busier than "the little busy bee" we have known from childhood; more prolific, more beautiful in appearance, and less inclined to sting.

Under the crude appliances of old-time bee-keeping it was a fairly remunerative business. "Bee profits" have figured in the balance sheets of old-world farming side by side with "poultry profits," from time immemorial. Much more then is it worthy of attention with the aid of modern improvements. Further progress may reasonably be expected. Science and skill are busy experimenting, and many wise heads are thinking out the subject in its various aspects. It is, therefore, only natural to expect that before many years apiculture will take a much higher rank than it now does among rural industries. Honey and beeswax are marketable articles for which there is a well-nigh limitless demand, a demand which, like that for fruit, increases with the supply. Honey forage is abundant everywhere. In wooded localities the maple, which when tapped, yields the sweet sap which we boil into sugar, furnishes honey in its earlier blossoms. In swamp regions there are various plants that supply bee-food with the first opening of spring. The willow yields pollen, propolis, and some say honey. Our early wild flowers and fruit-blooms give the bees something to do; and when white clover spangles the fields and roadsides, the honey harvest is in all its

glory. The late basswood blossoms, raspberries, asters, golden-rods and buckwheat protract the honey season into the fall. The bees are the best farm laborers we can have, inasmuch as they work for nothing and board themselves.

Wintering is the great difficulty about bee-keeping in this climate. Twenty or thirty degrees below zero is hard on bees. But this difficulty can be and is overcome by proper management. Negligence is more fatal to the apiary than extreme cold. The present winter has been very severe on bees, and those left without care on their summer stands are for the most part dead. But while doleful accounts come from unskillful or careless bee-keepers, experienced and vigilant ones have brought their stocks through even the present winter, either wholly unharmed or with only a small percentage of loss.

The chief trouble with beginners in bee-keeping is that they will not go to the slight expense and small trouble necessary to get informed on the subject. They buy a hive of bees, about which they know nothing, except that bees can sting, and that their honey is nice, and then leave it to take care of itself. It is needless to say that this is a very foolish course to adopt. What wonder that only failure and loss are the result? It would be the same in sheep-raising, dairying, or any other line of farming. While, therefore, we advise the farmer to make bee-keeping one of many lines of industrial pursuit, we qualify the advice by urging that it be by no means entered into without seeking information in regard to it. This can easily be obtained from books on apiculture, and from bee journals.—*From "Farm, Garden and Home" department of Inter-Ocean.*

The Kansas Bee Hive.

MR. EDITOR:—In the December number, page 132, Mr. Noah Cameron made some very incorrect statements in regard to the Kansas Bee Hive and myself. He says: "But the patented feature is the most curious. He first applied for a three side opener, but was refused because it infringed on other patents." This statement I pronounce entirely false. It can easily be proved at the United States Patent Office, that I never made application for any such contrivance as he represents. Mr. Cameron does not regard the patent as much of a "grab." Of course he has a right to his own opinion, and if he had given a fair and truthful account of the hive, so that others could form their opinions justly, I should not complain. He says: "this inventor intends to push things," meaning no doubt the hive business. It must be quite evident to all disinterested bee-keepers that Mr. Cameron has been pushing misrepresentations before the public. Many testimonies of practical

bee-keepers can be given as to the merits of my hive, and where it is in use, as it is largely in Iowa and Kansas, it gives good satisfaction. A fair and candid investigation of its merits is all I ask.

It has some undeniable advantages; among them, ease of access to the bees without injury to them, a nice arrangement for box honey, provision for cleanliness at all times, a sheltered and slightly-inclined alighting board, controlled entrance, good ventilation, and a contrivance to secure straight-built combs. Mr. Cameron has failed to do it justice, and hence this letter.

F. GRABBE.

25 West Lake St., Chicago.

Central Illinois Bee-Keepers' Association.

The regular semi-annual meeting of the Bee-Keepers' Association of Central Illinois met in the City Council Hall of Bloomington, Ill., February 27, 1873, at 11 A. M.

The president and vice-presidents being absent, A. C. Washburn, of Bloomington, was called to the chair.

The secretary, John Ansley, of Bloomington, then read the minutes of the preceding meetings, which were approved.

The treasurer, J. L. Wolcott, presented his report, showing a balance of \$4.90 in the treasury. Approved.

AFTERNOON SESSION.

The following questions were taken up:

1st. Fatality of bees during the present winter—its cause. This subject was responded to by J. L. Wolcott and others, who arrived at the conclusion that this fatality was owing partly to the bees having secured insufficient supplies of honey last summer, much of it unsealed; weak colonies; the long and severe winter, and improper ventilation.

2d. Best plan of uniting two colonies of bees. This was discussed by J. L. Peabody, of Normal, and others, who agreed that the most successful method is to catch both queens, destroy one, cage and hang the other in one of the hives, then sprinkle the bees in both hives well with sweetened water scented with essence of peppermint, and then unite them, letting the colony stand forty-eight hours, and then release the queen.

3d. Ventilation of hives. Responded to by J. Poindexter, A. C. Washburn and others, without coming to any conclusion.

4th. How may weak colonies be built up? This question was discussed by J. L. Peabody and others, resulting in the following decision: Supply the weak colony with combs filled with brood taken from strong colonies, all the old bees having been removed from the comb. When this cannot be done, contract the brood chamber of the weak colony by using division boards, and stimulate by feeding thin syrup made of coffee A sugar, one-third water and two-thirds sugar, brought to a boil.

And on motion of W. G. Thompson, of Normal, all the old officers of the Association were re-elected for the ensuing year, viz.:

President—S. C. Ware, Towanda. Vice-Presidents—J. V. Brooks, Lexington; C. V. Vandervoort,

Bloomington; J. H. Hendrick, Clinton; J. L. Peabody, Normal. Secretary—John Ansley, Bloomington. Corresponding Secretary, J. W. Gladding, Normal. Treasurer—J. L. Wolcott, Bloomington.

On motion of J. L. Wolcott, the thanks of this association were returned to all the papers which had published a notice of this meeting, also to the City Council for the use of their hall.

The association then adjourned to meet at such time and place as the Executive Committee may appoint.

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[For the American Bee Journal.]
From the South.

MR. CLARKE: I have been taking the A. B. J. for over a year, but have never seen more than one or two communications in it from any one this far south. I thought perhaps some of your many readers away up there in the frozen north and northwest would like to know what our bees are doing here, at this season of the year, the 15th of February. Well, I know if Messrs. Hosmer, Dunlap, Dr. Bohrer, Quinby, Gallup, Mrs. Tupper and a host of other bee-keepers from that cold country, could take a peep at my bees to-day and see how busy they are at work, and how fast they are making comb, they could not help but rejoice, as I do myself. I have been trying to feed them sugar syrup, but they do not care much for it, it appears that they find something in the woods that they like better than sugar-water. They have been bringing in pollen for the last two weeks and have commenced their work for the season in earnest.

How we bee-keepers here in the south sympathize with you bee-men up north. In looking over the last two numbers of the JOURNAL, we find the song from one end to the other, "how shall I winter my bees?" or "how shall I protect them from the cold and dysentery?" What an amount of labor they have to undergo to protect their little ones. They have to dig cellars, build houses, carry them in and carry them out, ventilate them to-day, and if it gets cold to-night, close them up to-morrow. Let me add one thought here. Speaking of ventilation for bees, I believe there is more humbuggery about that than anything pertaining to bee-keeping. I use a movable frame hive, and one that is well ventilated, and if bees need ventilation anywhere it is in the south during our hot summers. The hive that I am using I believe is as good a hive as any in use, and yet, in spite of all that I can do, they will close up all the ventilators, and that in the midst of summer. If I open them to-day they will have them closed to-morrow. I have come to the conclusion to let them have their own way about it, for when I am in the house and want the doors closed I am very apt to close them, and if they want their ventilators open, they can cut the propolis away as easily as to put it there.

We never think of moving our bees off their summer stands for protection here in the winter, in this latitude. We have had more cold weather this winter than ever before, yet notwithstanding our bees have not been kept in the hives more than three or four days at a time.

My bees did very well here last season, and I expect them to do better this year, if it is as good a

season as it was last for gathering honey. I expect to use the extractor. I do not keep bees for a profit, but for the pleasure it gives me to be about them and see them at work, and then I am very fond of honey.

Mr. Clarke, I intend to try and get you some subscribers around here, for we have men living here, in this enlightened age, that are so far behind in regard to the knowledge of the nature and habits of the honey bee that I fear it will be a long time before they will get rid of their benighted ideas, even with the aid of the many able contributors to the A. B. J. Why, sir, we have men here who have bees who profess to know something about them with the old-foggy ideas that the queen is the king or he-bee, and that the drones are the female bees, and that they are the ones that lay the eggs. I know that all the bee-men, north and west, will laugh when they hear this, but I cannot help it, for I have been trying to put some bee knowledge into their heads for a long time; some of them have been convinced, but there are others who are headstrong and think they know it all. It will require more force than I have to convert them, but if I can induce them to take the A. B. J. for one year, then I know they will be brought to the light and knowledge that they now possess not.

I am sure of this, that a man will never know much about bees until he reads the most popular works upon the honey bee, and takes a bee journal and throws away his old box gum and makes use of a movable frame hive. When he does this, then he can appreciate the operations of the bee.

Here, in this land, (you may say "land of honey," for the bees can gather it nearly all the year,) if a man gets twenty or twenty-five pounds of honey from a stand of bees, he thinks he is doing well. Why? Because they use the old box gum, and they rob the bees once or twice in a season. They have never seen a honey extractor, and many of them have never heard of such a thing. When I tell them of its results, that they can get from one to three hundred pounds of honey from a single colony, the mind of the listener is filled with incredulity, but when you establish the evidence upon which these results are based, then incredulity gives place to feelings of astonishment and admiration, and many will ask "what will they get at next?"

We have a good many bees in this part of the country, but no Italians. I tried last summer to Italianize my black bees, but failed on account of sickness. I have sent to get a colony of Italians, and if I get them I will soon have all of my blacks flying about with three golden bands around them.

C. H. CHANDLER.
Greenville, Butler Co., Ala., Feb. 15, 1873.

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¶ I here present thee with a hive of bees, laden, some with wax, and some with honey. Fear not to approach! There are no wasps, there are no hornets here. If some wanton bee should chance to buzz about thine ears, stand thy ground and hold thy hands; there's none that will sting thee if thou strike not first. If any do, she hath honey in her bag will cure thee too.—Quarles.